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Student anxiety and performance: A comparison of training in self-hypnosis with progressive muscular relaxation to enable students to increase control of their anxiety.

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ABSTRACT

Background

The literature has identified that children's performance can be impaired by anxiety. Anxiety can lead to tension, stress, avoidance behaviour, and inhibit performance. Progressive muscular relaxation (PMR) and self-hypnosis (SH) have been identified in the literature as approaches to address anxiety.

Aims

This study questions whether anxiety in students can be successfully reduced by teaching students to apply two particular self help approaches PMR or SH and whether SH is more effective than PMR. The study examines changes in hopelessness, self-esteem, locus of control, strengths and difficulties, personal targets, effect on home life, the part played by commitment, expectancy and effort and whether changes achieved are maintained over time.

Sample

20 secondary school students, all referred for anxiety related difficulties, were randomly assigned to either of the two treatment approaches with similar numbers of male and female students in each group.

Method

Each student attended four sessions with a parent to receive instruction in how to apply the treatment approach. Three follow up sessions took place over the following six months to check for maintenance of changes.

Results

Both approaches enabled participants to reduce their anxiety. There was a non-significant, persuasively consistent trend in measures completed by participants and by parents for the effectiveness of self-hypnosis compared with progressive muscular relaxation for anxiety reduction and on the other measures except for SDQ (parent-rated). SDQ improvement noted in the SH group by participants and their parents contrasted with teachers who noted most change in the PMR group.

Student and parent changes achieved on all measures were maintained over the following six months for the SH group except for effort and parent-rated SDQ. For the PMR group changes reported on all measures were maintained over six months except for self-esteem, SDQ (self-rated) and effort.

Conclusion

Students can be empowered to help themselves manage and reduce anxiety by using either PMR or SH, the latter appearing to show a consistent persuasive trend in effectiveness. Improvements in self-esteem, locus of control, personal targets, home life, and a reduction in hopelessness were also recorded. Parents and participants reported positive changes in home life. Anxiety reduction appeared correlated with high commitment to improve.

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CHAPTER 1: LITERATURE REVIEW

1.1 Introduction

The natural phenomenon of anxiety is fundamental to human existence and serves a function of preserving the species (Reed, Carter & Miller, 1992). Excessive anxiety however can lead to a detrimental effect on student performance, on relationships, on social interaction at home and at school and on emotional well-being. Use of the term *"well-being"* is thought to help to avoid some of the anxieties caused by the label "mental health". Whilst it is unclear as to whether there are more mental health problems now in children than previously or if this is due to better recognition (Hartley-Brewer, 2001), children do experience surprisingly high levels of mental health problems (Weare, 2004). An analysis of data from national surveys conducted in 1974, 1986 and 1999 examining trends in similar adolescent mental health problems over the 25 years, in UK 15 and 16 year olds, found that emotional problems, such as anxiety and depression, have increased for boys and girls since the mid 1980's (The Nuffield Foundation, 2004).

It is however important to bear in mind that mental disorder may not be completely within child and may point to an effect from external circumstances (Green, McGinnity, Meltzer, Ford & Goodman, 2005, p8). There are increases noted in self-harm in young women and in suicides in young men and studies showing that children with emotional and behavioural difficulties have increased susceptibility as adolescents and adults to mental illness (Buchanan, 2000; National Institute of Clinical Excellence, 2004). The worrying increase, in young people, of levels of

deliberate self-harm, shows that something is wrong in the field of mental health and has led to the House of Commons (30 March 2004) to initiate an enquiry (The Nuffield Foundation, 2004). Modern definitions of mental health are observed to overlap with definitions of emotional well-being. As Weare (2000) and Hartley-Brewer (2001) note, *"Mental health as it is now commonly defined includes the ability to grow and develop emotionally, intellectually and spiritually; to make relationships with others, including peers and adults; to participate fully in education and other social activities; to have positive self-esteem; and to cope, adjust and be resilient in the face of difficulties"*.

There are claims made that this is the "Age of Anxiety" and that life today is more demanding, stressful and complex (Yapko, 2003, p436). It is interesting to note that the prevalence of anxiety disorders in children in the 11 to 15 age group in Great Britain which was 4.6% in 1999 remained fairly stable over the following five years and was recorded as decreasing slightly to 4.4% in 2004 (Green, McGinnity, Meltzer, Ford & Goodman, 2005, p38). Anxiety disorders can involve irrational worry and lead to the avoidance of situations that the worry focuses on (Andrews, Creamer, Crino, Hunt, Lampe & Page, 2003) and can lead to many school related difficulties.

Anxiety in students may be indicated and accompanied by the presence of any one or more of the following: reduced or erratic school attendance, deterioration in performance at school, falling school grades, reduced self-confidence and self-esteem, difficulty maintaining concentration, avoidance of groups or crowds, social communication difficulties, development of rituals, obsessive behaviour and sleep

difficulties. The anxiety may often be associated with increased tension at home. Green et al (2005) found that of children with emotional disorders 17% had been absent from school for 15 days or more in the previous term in comparison to 4% amongst other children. Relaxation has been shown to help in the self-management of anxiety (Rachman, 1968). Also hypnosis and training in self-hypnosis can enhance the effects of relaxation (O'Neil, Barnier & McConkey, 1999).

In my experience Educational Psychologists (EPs) may frequently encounter referrals from, or consultations with, schools which reflect anxiety related difficulties in the referred student. EPs rarely become involved in providing treatment for anxiety. This prompts a variety of questions around causes of anxiety in the student and not least in how schools respond to, and identify, student anxiety and what schools can do to reduce or prevent, the likelihood of student anxiety. That some students are affected by anxiety more than others may be understood further by applying Spielberger's 'state trait theory' which will be considered later in this chapter.

The implications for educational psychologists and whether they should become involved in treatment and therapeutic approaches will hopefully be answered by considering this current research study. Some students appear to the writer to be instrumental in creating their anxiety by the exacting standards which they impose on themselves and the drive to achieve perfection, for example, by spending greater and greater amounts of time on assignments. This is sometimes referred to as 'perfectionism' and can often be due to unrealistic expectations and striving for order and predictability in the uncertainty of life (Yapko, 2003). Schools also can

create anxiety in students by setting unrealistic demands, for example by setting too much homework or by suddenly bringing forward deadlines for work to be handed in. The amount of testing, for diagnostic and selection purposes, that an individual encounters during their school career is also thought to contribute (Black, 2003). Black (p16) noted several parallel systems of testing and assessment including standardised tests used for selection and diagnostic aims, national assessments at age seven, eleven and fourteen, General Certificate in Secondary Education, National Vocational Qualifications (NVQs) and by teachers, informal everyday assessment of pupils learning. The huge problem which test anxiety causes for many students is remarked upon by Davies (1986, p50) and the fact that for the anxious student it can be a source of unfair discrimination.

The research topic for this study, of the usefulness of hypnosis for helping students address and manage anxiety related difficulties, developed when the writer, working as an educational psychologist, began using hypnosis as an adjunct to applied psychology to help students address difficulties in attending school. It soon became apparent that many of the students being referred to the writer had one thing in common, they were exhibiting symptoms of anxiety. Also the anxiety, in addition to distressing both the student and their parent(s), was disrupting learning and social performance and affecting emotional well-being. Of particular interest was the observation that beneficial changes achieved by the student whilst using self-hypnosis appeared to be maintained over time.

The following questions became the focus for this study. Can the application of hypnosis and self-hypnosis help students feel more in charge and in control of their

anxiety and improve their performance? Is teaching students relaxation through hypnosis and self-hypnosis more effective than teaching relaxation through muscular relaxation? These questions are addressed in this research study by comparing a group of students receiving instruction in self-hypnosis with a group of students receiving instruction in muscular relaxation, evaluating the outcomes and considering the implications for educational psychology.

The aim of this chapter is to define and to review the nature of and conceptual models of anxiety and ways of measuring anxiety, then to examine relaxation as an approach for controlling anxiety and the use of two treatments in particular, muscular relaxation and self-hypnosis. Other influences thought to have the potential to effect outcomes such as commitment, expectancy and effort will also be considered.

1.2 Anxiety

1.2.1 The Nature of Anxiety

In this section I list and explain some key concepts of the nature of anxiety with the particular situation in mind of the child at school. Anxiety is quite normal, and a certain level of anxiety can help to improve performance (Andrews et al, 2003). It is a crucial response by the individual to stress, to heighten their reaction and to improve performance. The relationship between anxiety and performance was illustrated by Yerkes and Dodson (1908) who proposed that there is an optimum level of anxiety for maximum performance. Heightened levels of anxiety have been noted to be detrimental to performance (Davies, 1986). Fear of anxiety is regarded

widely as part of being human and everyone experiences anxiety at some point (Kennerley, 1990). The opposite, a decrease in performance, happens when stress is experienced beyond a certain degree. Anxiety disorders are listed in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders 1994 (DSM4), as including: panic attack, agoraphobia, specific phobia, social phobia, obsessive compulsive disorder, post-traumatic stress disorder, generalised anxiety disorder and substance-induced anxiety disorder.

Anxiety can be a product of internal states such as general worries (Kennerley, 1990) though it is often associated with external events that are stressful. Generalised anxiety disorder is a persistent feeling of continually being anxious but for no apparent reason (Andrews et al, 2003). Frequently the individual will report various fears. Such fears may lead to the individual avoiding certain situations or objects and this is described as phobic behaviour. Of particular interest to this study is the observation that in most people there are two fundamental aspects of anxiety evident, an inclination to over rate the risks one faces and to underrate one's resources or abilities to deal with those risks successfully (Barlow, 2000). There is a clear link here with the importance of appraisal by an individual.

It was in the 1930's that the term "anxiety" came into use in psychological literature (Sarbin, 1968). There are many theories and explanations of anxiety and this contributes to problems in reaching an agreed definition (Cattell, 1966; Malmo, 1966; Grinker, 1966; Wolpe, 1966; Spence & Spence, 1966; Lazarus & Opton, 1966; Izard & Tomkins, 1966; Spielberger, 1966; Sarason, 1996).

It is useful to consider Spielberger's theory because of its influence on the way people have contemplated anxiety and because it provides a very useful framework for understanding the concept of anxiety. Spielberger developed the "State Trait" theory of anxiety which considers anxiety both as a trait, that is a personality factor, and as a state or situational factor. State anxiety is the level of anxiety felt by an individual when faced with a specific stressful situation and is a subjective and temporary reaction to a perceived threat. Trait anxiety is the extent to which an individual is fearful in most situations and is relatively constant (Davies, 1986). Trait anxiety is sometimes referred to as neuroticism in individuals who over time are seen to be consistently more emotional and sensitive (Eysenck & Eysenck, 1975; Costa & McCrae, 1992; Andrews et al, 2003).

Individuals with high levels of trait anxiety have more frequently reported greater levels of state anxiety in situations they perceive as threatening than have individuals with low trait anxiety leading to assertions of an interaction between state and trait anxiety (Sarason, 1960; Davies, 1986). Anxiety is defined in Reed, Carter and Miller (1992, p237) as: *"a dysphoric, aversive feeling, similar to fear, that arises without an obvious external threat. It may be either transitory or present throughout the life of the individual and it may be a primary psychological state or a symptom of an underlying somatic disease or toxic condition. It may occur after a trauma, but more frequently no precipitating event can be identified. The main characteristic is a constant feeling of tension that persists in the absence of threat".*

It is timely to consider here Beck's observation that the appraisal of threat of danger is thought by cognitive theorists to play a key function in triggering apprehension

and anxiety reactions (Beck, 1976). Therefore what identifies an event as potentially threatening is the appraisal of that event by the individual, as illustrated below (Andrews et al, 2003).

In this model, when life events are appraised, it is the thoughts and meaning given to them by the individual (for example, this is threatening) which can lead to arousal and action (for example, fight or flight) and lead to symptoms which can include increased muscle tension, sweating, shaking, palpitations, dry mouth, difficulty breathing, possible dizziness, narrowing of attention and worry. Fear of these symptoms, which the individual may not necessarily link to the threat, in itself can amplify the threat and contribute to the anxiety. On the model I have indicated where Spielberger's State anxiety and Trait anxiety would fit to illustrate how trait anxiety can amplify state anxiety.

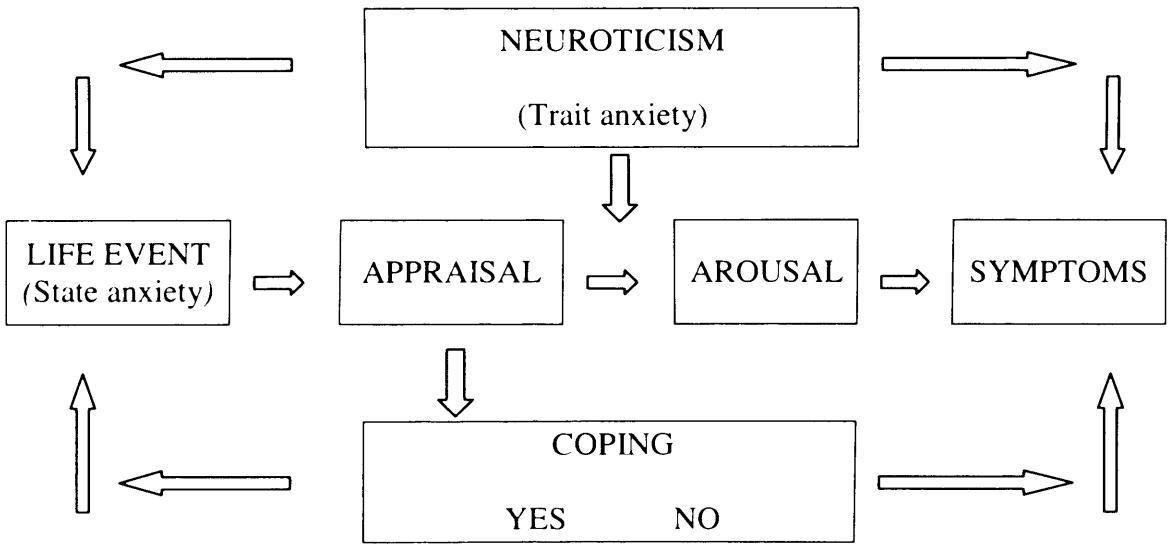

Figure 1.1 Model of relationship of neuroticism, life events, arousal, coping and symptoms of anxiety (Andrews et al, 2003), with Spielberger's State and Trait anxiety superimposed and with my elaboration of the coping mechanism).

The above approaches to anxiety, as a psychological phenomenon, are useful when thinking about children at school and the effect anxiety is having upon their performance because these approaches can provide us with a structure to help analyse the type(s) of anxiety being experienced by the child (DSM4, 1994). They also assist in confirming whether personality factors, or situational factors, or both are involved (Spielberger, 1966), which in turn helps in the formulation of a more specific and constructive response. For example in a school phobia scenario, if it was ascertained that situational factors were contributing to the anxiety then focussing on systems change involving environmental factors may be more likely to facilitate a desired effect than focussing solely on within child personality factors. This is particularly pertinent with regard to Atkinson and Feather (1996), who viewed anxiety as an approach-avoidance paradigm relating anxiety to the need to avoid failure, noting that the school provides a setting where a large number of individuals are exposed to failure.

To summarise, there are particular points about the nature of anxiety that have relevance to the planned empirical work of this study to help students increase control of their anxiety. Anxiety we know can, up to a point, improve performance but beyond this point it appears to have the effect of decreasing performance. We also know from Spielberger's State/Trait theory that trait anxiety often appears to amplify state anxiety and we can link this theory to the Relationship model (fig. 1.1) proposed by Andrews et al (2003) to speculate on cause and effect. In addition we know that what identifies an event as potentially threatening is the appraisal of that event by the individual. Therefore if the individual can be enabled to adjust their appraisal in the direction of perceiving the event as less threatening and /or gain

more control over their trait anxiety then this could help the individual to better manage their anxiety. This is exactly what the two treatments employed in this study, progressive muscular relaxation and self-hypnosis, are designed to do.

1.2.2 Measures of Anxiety

Recognising and clarifying whether a student is anxious is difficult and complex. Indeed the guidance document 'Promoting children's mental health within early years and school settings', actually asks, "*how can schools identify children who are depressed or anxious?*" (DfES, 2001, p30) but whilst helpfully listing some approaches found to be effective in helping these children and young people it fails to address the question of identification.

Anxiety is known to have cognitive, physiological and behavioural elements, and assessment of anxiety often involves all three (Lang, 1968) and can be observed to be present in many self-report measures. The self-report measure was felt to be a particularly appropriate method of collecting data for this study, concerning management of anxiety in students, as it involves the participant in the process, and diminishes the pressure on the participant having to talk (La Greca, 1990). A further advantage of using self-report measures is that they are inexpensive in both cost and time and enable quick assessment of symptom severity. However a possible disadvantage, which in a very limited number of cases could potentially be quite restrictive, would be if the measure did not include the fear or anxiety particular to the child (Kendall & Ronan, 1990).The literature reveals that for both treatment and evaluative studies of anxiety a variety of self-report measures have been used including:

- Beck Anxiety Inventory (Beck et al, 1990).
- Beck Youth Anxiety Inventory (Beck, 2001).
- Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985)
- State-Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970).
- Cognitive Somatic Anxiety Questionnaire (Schwarz, Davidson & Goleman, 1978).
- Leeds Scale for Anxiety and Depression (Snaith, Bridges & Hamilton, 1976).
- Zung Self-Rating Anxiety Scale (Zung, 1971).

Both the Beck Anxiety Inventory (BAI) and the Beck Anxiety Inventory-Youth (BAI-Y) were selected for use in this study. Apart from the other inventories being older and more dated, an additional reason for not using the State-Trait Anxiety Inventory (Spielberger et al, 1970) is that it is intended to assess two time periods, how the child feels now and also how the child usually feels. This has a potential disadvantage of causing confusion, particularly in children who may be severely disturbed (Beck, Beck & Jolly, 2001). It also illustrates how difficult and complex the task of identifying and measuring anxiety can be. The Revised Children's Manifest Anxiety Scale was not used because it has raised some unease in that the names of its sub scales do not reflect the items from which the sub scales are composed (Finch & McIntosh, 1990).

The BAI was selected from the above inventories for several reasons. In addition to the recency of its construction, its twenty one item scale measures severity of reported anxiety in adolescents, as well as adults, and has "*demonstrated clinical usefulness and sound psychometric properties for adolescents*" (Beck, Beck & Jolly, 2001, p.3). It is also attractive in that it is in a self-report format, is easy to complete and takes a very short period of time. The self-report measure format of the BAI was also chosen because is especially important for the evaluation of thoughts and symptoms, such as those involved in anxiety and self-esteem for example. It has been recorded in a study using the BAI, with a sample of 393 outpatients with anxiety disorders, that total scores were inversely related to age, "*the younger outpatients reported more severe levels of anxiety than did the older patients*" (Beck & Steer, 1993, p.19). Unfortunately Beck and Steer omit to provide any reason to account for this, and one is left to speculate on whether this may be a reflection of the developmental stage reached by the outpatients. However this was not felt to be a contraindication to using the measure in the main study because the age range in the study is narrow.

The BAI-Y was also selected for use in this study because, in addition to the self-report format, it has a greater number of items that are possibly of greater relevance to a youth's life (eg. "I worry when I am at school") whilst the BAI contains more items related to physical symptoms. The BAI-Y is designed to assess anxious emotions and thoughts, somatic symptoms, social anxiety symptoms, particular fears (eg. school phobia), panic symptoms and worries about "*physical and psychological integrity*" (Beck, Beck & Jolly, 2001, p19).

It should not be overlooked that there are many fears and anxieties experienced by children which are a normal aspect of a child's development, and data has been collected which demonstrates that the content of childhood fears changes as the child develops (Campbell, 1986). As well as developmental differences, gender differences are also documented with girls reporting fears more frequently and also girls, in the 11 to 15 age range, registering a higher percentage of anxiety disorders than boys (Green, McGinnity, Meltzer, Ford & Goodman, 2005).

1.2.3 Anxiety and School

It has been noted that the school setting provides an environment in which many are exposed to failure. Several factors in school have the potential to lead to student anxiety and affect student performance and emotional health (Gaudrey & Fitzgerald, 1971). Anxiety is a response to stress and stressful situations can create anxiety which can lead to illness. Children anxious in school do not usually behave in an aggressive hostile manner (Phillips, 1978). If anxiety is a reaction to stress then knowledge about likely stressful settings, situations and causes could be useful (Phillips, 1978).

Causes of anxiety in school may include the school environment, academic work and relationships with other students and with staff (Hallam, 1996). Anxiety about the environment may include transfer to a large school, getting lost, being late, movement around the school after each lesson, fear of forgetting books and equipment, fear of certain parts of the school where unobserved bullying may take place and fear of changing for PE, sometimes under the extreme time limits. However, students during their secondary school career not only have to cope with

the heavy demands of homework, coursework, pressure of meeting deadlines, tests and exams, and fear of failure but also a developmental source of anxiety, puberty (Slaff, 1990). Slaff notes that new steps in growth and development are times of extraordinary stress and that puberty is just such a predicament.

Hallam's (1996), second cause of anxiety links anxiety as a reaction to stress with academic work. Phillips (1996) lists a variety of school related sources of stress which he found related to achievement. Examples of these include:

- Teacher talking too fast.
- Students knowing that their work will be compared with what others do.
- Teacher expectations.
- Keeping up with the rest of the class.
- Having as good a report as parents expect.
- Having a mistake laughed at by peers.

Phillips (1996) arrived at his conclusions concerning the relationship between stress and achievement, in analysing responses of ten year old pupils to questions focussing on school conditions, events and interpersonal relationships in his "Children's School Questionnaire" (Phillips, 1996). The questions sample stress from two types of situations which can be stressful and involve achievement stressors and social stressors. Phillips looked at studies which involved experimental manipulation of stress and found ego-involving instructions to be a means of inducing psychological stress. Stress was induced by the subject being instructed that performance on a specific task was related to intelligence. Several

studies (Sarason, 1961; Denny, 1996; Spielberger & Smith, 1996) show ego-involving instruction does induce stress. There is also the finding that teacher behaviour *"suggests that teachers attempt to use ego involvement to increase student performance"* (Phillips, 1978, p35). An exhaustive list of potential sources of stress in school could be huge, and in addition, individual school practices can also influence stress on students, so that it is possible for there to be more stress in some schools than in others, and this type of knowledge is important when considering interventions in school to reduce stress (Phillips, 1978).

Hallam's (1996) third cause of anxiety in school involves relationships. When one or more of the following are also involved, for example loss of a parent or sibling, illness, accident, trauma, child abuse, assault, prejudice and exclusion, displacement, loss of employment by parent, relationship loss, effects of being bullied, parent with terminal illness, it is apparent that many students during their school career will at some point experience anxiety related difficulties. These anxiety related difficulties can effect the mental health of the student for varying lengths of time and to varying degrees of intensity. Berlin (1990) noted that the effects of stressors vary with the developmental maturity of the individual. Stressors related to suicide and suicide attempts in adolescents were studied by Teicher (1979). The impact of such anxieties and stresses outside of school can have an impact on the student in school, affecting them in a variety of ways including concentration, performance and relationships and even in some instances may affect their ability to attend school.

Steps can be taken to reduce the likelihood of children and adolescents becoming anxious or depressed in school, as a result of experiences such as being bullied or worry about school work or exams, by the development and promotion of anti-bullying policies in schools and the strengthening of pastoral systems to enable students to discuss their worries and thus help avoid the development of long term difficulties (DfES, 2001).

In conclusion, there are referred to in this section a host of factors both out of school and in school which can lead to student anxiety and affect performance, emotional health and even attendance. It would seem pertinent, for the benefit of their students, for schools to consider adopting policies which address knowledge about stressful settings, situations and causes in order to take a proactive approach where possible to limiting potential causes of anxiety. However, there will still remain some students who will need individual help to reduce and manage their level of anxiety at school.

1.2.4 Consequences of Anxiety

For individuals experiencing anxiety the consequences can be far reaching and extremely disruptive both for themselves and for those around them. They can lead to the anxious individual worrying about their social performance and public image and constantly monitoring and evaluating their behaviour, becoming pre-occupied with themselves as a social being (Schwarzer, 1984). A common source of awakening anxiety is when an individual appraises circumstances as ego threatening (Schwarzer,1984). Carver and Scheier (1984) saw this preoccupation with self-focus as a "copying process" where the self-focus leads to interruption of action, with the

effect being less investment in task effort, less persistence and increased likelihood of experiencing failure. Carver and Scheier's view compares with the following finding that individuals with high anxiety levels are more distracted by task irrelevant stimuli than those with low anxiety levels (Wine, 1971). A comparable finding, from research on anxiety in test situations, concluded that as a consequence of the more important a test situation is the less well do anxious people perform (Sarason, 1960, 1961).

It may be helpful at this point to recall that anxiety can manifest itself in a variety of physical symptoms eg. tension, respiratory, gastrointestinal, headaches and cognitive symptoms eg worrying and affective symptoms eg. fear (for a more extensive list see Appendix No.3). All of the aforementioned can affect an individual's performance, and it is not surprising that depression of performance has been shown to be a consequence of worry, a cognitive component of anxiety, though notably emotionality, an affective component, does not appear directly related to decreased performance (Davies, 1986).

A notable consequence of anxiety, particularly relevant to the age group in this study, is impaired concentration and memory, in addition to impaired performance, which can lead to avoidance of the anxiety provoking situation. When such a situation is located in school, then the student response may include avoidance of specific pupils, staff, lessons, particular areas of the school, or even school refusal with disruption of the student's programme of study, relationships and deterioration in their emotional well-being. A consequence of Phillip's (1996) observations of sources of stress in schools led him to call for a redirection of School Psychological

Services to deal more effectively with stress and anxiety and for schools to do more about children's stress, anxiety and their maladaptive consequences.

Of further note is the finding that when examining teachers' and peers' self-reports, anxious children, when compared with non-anxious peers, showed lower self-esteem, problems with attention, depression, and impaired peer relations, school performance and social behaviour (Strauss, Frame & Forehand, 1987). The latter identified in non-clinic samples of children a significant correlation between anxiety and problem relationships with peers. Another study (Straus, Lahey et al., 1988) found that anxiety disordered children were liked less than non anxiety disordered children but also, and rather surprisingly, that they were not seen as different from conduct disordered children. A third study, to see if clinic-referred anxious children display social deficits (Strauss, Lease, Kazdin, Dulcan & Last, 1989) compared three groups of children, an anxious group, a clinic control group and a non-referred control group. They found that compared to the non-referred children anxious children were lacking in social functioning and also that parents, teachers and children saw anxious children as less socially competent. A weakness in this study was the clinic comparison group which only included small numbers of children and from which it is unsafe to generalise findings based on a comparison with this particular group.

In conclusion, from the above references the consequences of anxiety for students are well documented and can be far reaching. The above symptoms alone are at the very least unpleasant and distracting and known to depress an individual's performance. In addition impaired concentration and memory have been recorded as

well as students afflicted in this way being less well liked by their peers and, worryingly, not seen as different from conduct disordered children. Disrupted study, relationships and a deterioration in emotional well-being can be a consequence.

1.3 Methods of Intervention

1.3.1 Treatment of Anxiety

It is not the intention of this study to review the various treatments for anxiety. Rather it is the intention to compare the efficacy of two particular approaches, muscular relaxation and self-hypnosis. However it is important to note there are various other treatments for anxiety several of which will be briefly referred to after first considering the rationale for the two approaches.

1.3.2 Rationale for selection of the two approaches to treatment of anxiety

The rationale for selecting the two approaches to compare in the treatment of anxiety included that both:

- Can be taught to young people within three sessions
- Have an evidence base for their effectiveness in reducing anxiety
- Have no detrimental side effects
- Can be practised at home
- Provide the young people with the freedom to treat themselves
- Actively involve the young person in their treatment
- Enable the young person to become their own therapist

In addition relaxation training has been shown to be a most effective treatment for anxiety disorders (Ollendick & Cerny, 1981; Jorm et al, 2004) and was felt to be a proven treatment to compare with self-hypnosis.

Appraisal by the individual of events and situations appears to be critical to the ensuing feelings they experience and behaviour which they subsequently display. Appraisal also appears central to this study and both PMR and SH treatments were felt to have the potential to influence the way an individual might appraise a situation. Finally of fundamental relevance to the rationale was that both treatments could lead to a feeling of empowerment for the participant.

1.3.3 Other approaches to the treatment of anxiety

Cognitive-behavioural approaches include various strategies that aid self-control and self-mastery including active problem solving, self-instruction, emotive imagery, stimulus control and coping self-statements. The aim is to help the individual to change their interpretation of events (Andrews et al, 2003, p27) and by so doing to change the effect of those events on that individual.

Counselling is felt to be very helpful for children and adolescents and is increasingly offered in schools particularly for those pupils who are anxious or depressed. Although it should be noted that research to date has not shown long term benefits for counselling type approaches, children and adolescents value *"having someone to talk to, being properly listened to and having their difficulties taken seriously"* (DfES, 2001, p31). Unfortunately the DfES document does not provide empirical backing for this assertion.

Social skills training, an aspect of the personal-social education (PSE) curriculum, to develop interpersonal relationships and self-esteem, is considered to be important for building resilience in this particular at risk group of children and adolescents (DfES, 2001). Ironically, several experienced teachers have confirmed with me that in order to accommodate curriculum developments and other changes introduced by successive governments, since the inception of the national curriculum, and the subsequent intense competition for curriculum time in the school day, social skills training, one of the broader affective aspects of the curriculum has frequently had to fall by the wayside. This is not surprising in that PSE "*was not included in the founding legislation of 1988*"...and... "*now takes a limited place in the national curriculum*" (Watkins, 1999).

Structured problem solving is a technique originally developed for behaviour modification (D'Zurilla & Goldfied, 1971). It is based upon the premise that the anxiety disordered individual, who is helpless and not able to work out their problems, could be taught ways of becoming more effective at solving their problems (Andrews, 1990).

Psychopharmacological treatments of child and adolescent anxiety are available, and it is clear that for some children medication is helpful. However there is some disquiet about their use (Kirsch, 2005). Studies of the evidence for the success of such treatments were found to be far from conclusive by Klein (Klein & Last, 1989). Controversially, research into the use of SSRI's with young people and adolescents (Kirsch, 2004) suggests placebos to be as effective as SSRI's, with the

added benefit of no side effects. Also more suicides were recorded in those taking SSRI's compared with those taking placebos. "A meta-analysis of published and unpublished clinical trials reveal that the benefits of antidepressants over placebo are minimal" (Kirsch, 2005, p59).

Meditation, designed to induce a feeling of calmness in the anxiety disordered individual, involves sitting quietly, concentrating on breathing, whilst eyes are closed, for ten to twenty minutes (Benson, 1976). Although some clients say they benefit this has not been shown to be of benefit for anxiety disorder (Andrews et al, 2003).

Hyperventilation control is a technique sometimes advocated for individuals with anxiety disorder as hyperventilation has been frequently seen to be associated particularly with panic attacks (Holt & Andrews, 1989).

Graded exposure is a technique, based on learning theory, which is used to help individuals to prevail over situations which cause them fear. Graded exposure involves the individual in being gradually re-exposed to the anxiety provoking stimuli until eventually they reach the point where they consider that the fear is unfounded (Wilson, 1984; 1990; Andrews et al, 2003).

It has been noted in almost all approaches to treating anxiety disorder in children and adolescents that an essential step in the process is for the individual to confront the feared stimulus. Indeed some see confrontation as a necessary step (Reed, Carter & Miller, 1992). Teaching the participants, in this study, techniques of muscular

relaxation or self-hypnosis so they can tackle and manage anxiety by themselves, is also empowering for the participants by them becoming able to confront the feared stimulus independently.

1.3.4 Treatment adherence

Whatever treatment is involved it will not have any effectiveness without adherence by the participant. An important feature of this study is active participation. The importance of "active patient participation" in enhancing and facilitating the carrying out of recommended behaviour was recognised by Meichenbaum & Turk (1987). They defined 'adherence' as implying "*an active, voluntary, collaborative involvement of the patient in a mutually acceptable course of behaviour to produce a desired preventative or therapeutic result,*" (Meichenbaum & Turk, 1987, p20). It is acknowledged that adherence is difficult to assess and non adherence can be non intentional as well as intentional. If a participant wishes to improve their situation one might expect their motivation to help them to adhere to the treatment prescribed. This is not however necessarily so. In adolescent cancer patients for example in one study 40 to 60% were found to have failed to take their prescribed medication as directed (Tebbi, Cummings, Zevon, Smith, Richards & Malton, 1986)

Various factors can affect adherence including participants' beliefs, complexity of the therapy, duration, degree of intrusiveness into their lives and their understanding of their condition. The importance has been recognized of participants not only believing in the treatment effectiveness to help them reach their targets but also that they could learn and carry out the essential skills (Bandura,1977). This study aims to do exactly this.

1.3.5 Action research

Action research is about research in the real world not the laboratory, it can include experimentation in natural settings (Greenwood & Levin, 1998). This study may be considered an example of action research. Action research encourages the participant to be reflective about their own practice (McNiff, 2002) involving a high level of sensitivity as well as reflection about the role of self in mediating the research procedure and development (Somekh, 2006) and which influences the quality of the research. The cycle of action research can be viewed as action which leads to critical reflection which can then lead to further action. It has been described by Costello (2003) as following four stages of *plan, act, observe, reflect* leading to a repetitive spiral of these steps. Interestingly this mirrors in several ways the process in which the participants in this study are engaged.

Action researchers go into the research with particular biases and this is normal. However it is therefore important to construct within the research process a critical reflectiveness. Some researchers for example do not rely on their own critical examination of their bias alone but also engage others as critical friends to aid their reflections of the research (Herr & Anderson, 2005). An action research dissertation such as this D.Ed. Psy. Thesis is conducted by a researcher who is also a practitioner, as opposed to an academic or professional researcher, and the work of this researcher as an insider to the situation being studied can provide useful insights into social processes and practices (Herr & Anderson, 2005). Action research is reflected upon further in section 5.3.7.

1.3.6 Progressive Muscular Relaxation

Taking part in physical activities can have a relaxing effect on the individual and relaxation training is helpful for those people who say they are tense or unable to relax. Relaxation training can vary and take many forms including meditation, yoga, progressive muscular relaxation training and hypnotically induced relaxation, (Kennerley, 1990). Progressive muscular relaxation is easy to learn and can relieve mental and physical tension and thus give the participant a feeling of control over their tension. It is recognised that progressive muscular relaxation is a skill acquired through practice to reduce tension, reduce overall level of arousal and improve control of anxiety (Andrews et al, 2003).

Progressive muscular relaxation was developed by Jacobson (1938). Jacobson noted an association between tension and anxiety (Bernstein & Borkovec, 1973) and also that both states of excitement and relaxation "*cannot exist in the same locality at the same time*" Jacobson, 1938, pxv). Jacobson viewed his method as quieting the nervous system, including the mind, observing that "*the nervous system cannot be quieted except in conjunction with the muscular system*" Jacobson, 1938, pxii). He taught his patients to relax their muscles rather than tense them in response to stress. He did this by teaching patients to systematically progress from one group of muscles to the next, first tensing the muscles then relaxing them. This approach is often the first step in an anxiety management control programme. Jacobson's prescribed course of treatment was very lengthy involving fifty six one hour sessions of training. Joseph Wolpe in 1948 produced a modified version of Jacobson's approach and one that was much shorter and accompanied by verbal

instructions given by the therapist and which developed into what became called 'systematic desensitisation' (Wolpe 1958).

Detailed practice procedures for relaxation, building on Jacobson's original ideas, are described in Bernstein and Borkovic (1973), King, Hamilton and Ollendick (1988) and Bernstein, Borkevec and Hazlett-Stevens (2000). These procedures take much less time to complete and informed the scripts used for this study (Appendix 7 & 8).

The role of muscular relaxation was considered by Rachman (1968). In his paper he argued that although training in progressive relaxation facilitates treatment (ie. systematic desensitisation), it is not an essential element in the therapy. Rachman also argued that whilst relaxation seemed to be an essential part of systematic desensitisation he was not convinced that muscular relaxation was necessary and further to this he proposed that what a number of experiments and clinical reports describe as relaxation may simply be a feeling of calmness, having very little to do with tension in the muscles. Rachman suggested that the feeling of calmness can be elicited by verbal instruction and suggestion and by simulation of imaginary scenes of peaceful, pleasant quality. It is this cognitive "feeling of calmness" that is effective in the systematic desensitisation approach (Edmonston, 1981).

Desensitization was developed by the psychiatrist Joseph Wolpe, who through his work on the counter conditioning of fear responses in the 1940's further developed Jacobson's muscular relaxation procedures into a systematic programme of treatment (Berstein, Borkovec, & Hazlett-Stevens, 2000). Many other colleagues and psychologists have tackled all types of fears with almost complete success using

this approach. The method is based upon the fact that it is not possible to be both afraid and relaxed at the same time. In other words anxiety reactions do not occur when the subject is relaxed. Therefore it is important to teach the subject to relax. Relaxation is most beneficial if it is used by the individual at the time when they are starting to feel anxious, (Golden Dowd & Friedberg, 1987; Bernstein et al, 2000).

Relaxation training programmes of seven minutes were delivered by Setterlind and Unestahl (1978) to school children in Karlstad to teach them physical and mental relaxation. Comparing the relaxation groups with control groups they found the relaxation groups showed positive effects in reduction of anxiety, also more than half of them reported long term effects of being calmer, more self-confident and happier (Setterlind and Unestahl, 1978). Relaxation with children has been found to be constructive for asthma (Dinnage, 1972, Siroto, 1974) and pain management (McGrath, 1987). A weakness of McGrath's study is that it contains insufficient information on the methodology employed. Madders (1989) describes the benefits of relaxation work with children although only subjective evaluation is provided.
Noting the limited amount of systematic research relative to the frequency with which relaxation techniques were being used and in particular in the case of children and adolescents Setterlind and Patriksson (1984) conducted an experimental study, including the use of a control group, of relaxation training in Swedish schools. Comparing a group of pupils who received relaxation training with a group which did not their analysis of results recorded that *"pupils in the experimental group had more often changed in a positive direction whilst those in the control group hadn't experienced any change at all"* and that *"pupils evincing a high degree of anxiety show positive development throughout."* (Setterlind & Patriksson, 1984, p305-306).

In another and later part of the study examining recovery after strenuous activity they concluded that the relaxation training for adolescents had in addition to a beneficial physiological effect also a positive psychological effect on their feeling of rest and recovery. However the numbers involved were quite small and as they were taken from pupils involved in the earlier part of the study one is left speculating on the possibility of some carry over effect.

There is further evidence that beneficial effects are associated with teaching children and adolescents relaxation skills (Weisman, Ollendick & Horne, 1974). Although these studies are sparse, they appear to be consistent in their findings which include significantly reduced levels of muscle tension (Ollendick & Cerny, 1981; Koeppen 1974). In contrast, Andrews et al (2003, p.26), who omit to mention hypnosis in their book, state that for muscular relaxation in individuals with anxiety disorders "*results have never been shown to be superior to placebo.*" However this appears to be contradicted by a more recent substantial review, which examined the level of evidence for the effectiveness of one hundred and eight complementary and self-help treatments (although surprisingly hypnosis was not referred to) for anxiety disorders. It concluded that best evidence of effectiveness, was relaxation training, for treatment of generalised anxiety, panic disorder, dental phobia and test anxiety (Jorm et al, 2004).

In conclusion from the above the evidence for learning and applying progressive muscular relaxation to benefit the reduction of anxiety and induce a feeling of calmness, and particularly if used by the individual when they are starting to feel anxious, appears to clearly outweigh what little evidence there is to the contrary.

The progressive muscular relaxation approach was selected as one of the two interventions for this study as there is considerable evidence available supporting the efficacy of the technique (Jacobson, 1938; Weisman, Ollendick & Horne, 1974; Ollendick & Cerny, 1981; Jorm et al, 2004) and it is very straightforward to deliver. It also lends itself to being taught to the user within three or four sessions and from then on can be applied by the user as and when needed. This freedom to treat oneself can have an empowering effect and was an aspect which the researcher wanted to match in both interventions.

1.3.7 Hypnosis

The efficacy of hypnosis alone has been established for several medical conditions as well as its efficacy as a component of a treatment schedule (Stewart, 2005) which is in considerable contrast to its current negligible use in education. Hypnosis may be applied to a wide range of problems including anxiety disorders and depression (Rhue, Lynn & Kirsch, 1994). Hypnosis can be used in several ways to reduce anxiety and stress including relaxation and systematic desensitisation, cognitive restructuring and also as a technique for uncovering sources of anxiety or fear (Golden, Dowd & Friedberg, 1978). Hypnosis can be viewed as a tool to be used as an adjunct to the professional training of the therapist (Olness & Kohen,1996, p.xii; British Psychological Society, 2001, p13).

Included amongst the growing body of studies in the literature, where hypnosis has been used and which have reported effective application are, self-esteem (Macfarlane & Duckworth, 1990; O'Louchlan, 1995; Moss & Oakley, 1997; Saur & Oster, 1997; Stanton, 1997; Reupert & Mayberry, 2000), anxiety (Kirsch,

Montgomery & Saperstein, 1995; Schoenberger, 2000), phobias (Crawford & Barabasz, 1993; Weitzenhoffer, 2000), children's disorders (Olness & Kohen, 1996; Milling & Costantino, 2000), irritable bowel syndrome (Gonsalkorale, Houghton & Whorwell, 2002) and depression (Yapko, 2001) to mention but a few.

For many years hypnosis was defined as a special state, different from normal waking consciousness (James, 1890). A continuing debate, has spanned several decades (Kallio & Revonsuo, 2003) as to whether hypnosis is an altered state of awareness or consciousness (sometimes referred to as trance) which is different from being awake or asleep. This has been controversial and generally appears to have been unproductive and divisive and has even been referred to as a distraction (Kihlstrom, 2005). Central to this debate appears to be whether, in order to create hypnotic experiences, a trance state is required (Kirsch, 2005). Writings in the literature, trying to establish what hypnosis is, have concluded that there is more agreement about what it is not, rather than what it is (Naish, 1986), and that there is not one single agreed definition (Lynn & Rhue, 1991; Yapko, 2003).

It is however useful to have a definition to work to if only to have a starting point for shared agreement or otherwise. The following useful definition of hypnosis is provided by Kihlstrom: "*Hypnosis is a situation or set of procedures in which a person designated as the hypnotist suggests that another person designated as the patient, client or subject experience various changes in sensation, perception, cognition or control over motor behaviour*", (Kihlstrom, 1985, pp385-386). A similar, more recent, definition which appears to build on the above definition can be found in the report 'The Nature of Hypnosis'; "*The term 'hypnosis' denotes an*

interaction between one person , the hypnotist, and another person or people, the 'subject' or 'subjects'. In this interaction the hypnotist attempts to influence the subjects' perceptions, feelings, thinking and behaviour by asking them to concentrate on ideas and images that may evoke the intended effects. The verbal communications that the hypnotist uses to achieve these effects are termed suggestions" (The British Psychological Society, p3, 2001). In accepting a suggestion an individual is then believing and expecting it to happen (Kirsch, 2000).

All hypnosis is considered by many to be self-hypnosis (Araoz, 1995; Alman, 2001; Alman & Lambrou, 2002) and a definition of self-hypnosis is useful at this point. "Self-hypnosis is the means by which people are taught to use the natural process of self talk, cognition and imagery for their own benefit, not against themselves" (Araoz, 1995, p23).

Advances in technology such as positron emission tomography (PET), are providing greater insights into the effects of hypnosis on brain activity. PET has confirmed hypnosis is not just a process of following directions but involves change in the brain's activity. When subjects were given a suggestion to see colour, the colour perception areas in their cerebral hemispheres became active whether looking at colour or black and white patterns. The activity decreased when subjects were given the suggestion to see black and white (Kosslyn et al, 2000).

An undesirable influence on public attitudes and subsequent responses to the use of hypnosis in research or therapy has been attributed to the popular media (McConkey & Jupp, 1986). Its use in films and television and the viewing of stage hypnosis,

contributed to public misconceptions and negative attitudes (Crasilneck & Hall, 1985) and has given rise to apprehension about potential side effects (Heap, 2000). In general there appears to be a stereotypical view held by the public of hypnosis involving a type of powerful control of the mind, and on which many popular misconceptions appear to be based (Wester, 1984; Mann, 1986). However, there is mounting objective evidence confirming that the use of hypnosis, as an element in the treatment procedure, commonly enhances the benefits of the treatment (Lynn, Kirsch, Barabasz, Cardena & Patterson, 2000; Schoenberger, 2000).

Establishing an alliance and positive rapport, between participant and therapist, to ensure consent and agreement of the hypnotized participant is important for hypnosis to occur. It has been suggested that this may be enhanced by dispelling myths and misconceptions about hypnosis (McNeilly,2001; Yapko, 2003) and by the client being informed, and understanding, that hypnosis is not something done to them, and that they will remain in control during hypnosis (Zeig, 2001; Capafons et al, 2005) and that hypnosis has the effect of putting self more in control (Mathews, Lankton & Lankton, p.372, 1996).

It is pertinent to remember that every person's experience of hypnosis can be different (Fromm & Nash, 1992, p392). Understanding how hypnosis works has long preoccupied exponents of hypnosis and others. One interesting explanation considers that in hypnosis the individual influences their reality testing, suspending feedback of the world around them by narrowly focussing attention inwardly, which frees the person to accept whatever reality is suggested (Orne, 1959; McConkey, 1991; Sheehan, 1992). Yapko (p.71, 2003) observes, *"your perception of events is*

the determining factor in the course of action that you take," and "a person's perception is a person's reality." If we accept this observation and apply it to the cognitive –behavioural model of 'how you see things effects how you feel, which effects how you behave', then it is possible to recognise how achieving a shift in a person's perception (in hypnosis) is likely to cause a shift in how they feel and ultimately a shift in how they behave.

Studies have produced evidence of change in response to suggestion in hypnosis (Gruzelier, 1998; De Pascalis, 1999; Barabasz, et al, 1999). The ways that individuals respond to suggestion are very much influenced both by the context they are given in and by expectations fashioned by the hypnotist (British Psychological Society, 2001). I shall explore expectations at greater length later in this chapter. Four stages in hypnotic interaction (table 1.1) were proposed by Yapko (2003). An example of influencing expectations in hypnosis following stage one of securing the client's attention and absorption, is in the second stage of the hypnotic experience which includes an induction and the guiding or focussing of attention and encouragement of a response set (Yapko, 2003). However whilst some claim that induction is not necessary for hypnosis to take place, recent research findings provide evidence for the facilitating influence of induction for hypnosis, particularly when accompanied by the word hypnosis (Gandhi & Oakley, 2005). The third stage, therapeutic utilization, includes the selection of therapeutic approaches and their application, facilitated by hypnosis. The fourth stage involves the ending of the hypnosis session culminating usually with the therapist involving the client, for example by counting from five to one, letting their eyes open on two, and feeling wide awake and ready to get on with the rest of the day on one.

Table 1.1 Stages of Hypnotic Interaction

(Yapko, 2003, p.288)	
1	Orienting to hypnosis and securing attentional absorption
2	Hypnotic induction and building a response set (intensification)
3	Therapeutic utilization
4	Disengagement and reorientation.

The involvement of the client in hypnosis, in other words the involvement of self (Kahn & Fromm, 1992), can have a considerably empowering effect putting as it does the client in control. In as much as the client is always in control, even when engaged by the hypnotherapist, many consider all hypnosis in reality to be self-hypnosis (Araoz, 1995; Alman, 2001; Alman & Lambrou, 2002, p.8). I shall now consider self-hypnosis in more detail.

1.3.8 Self-hypnosis

Self-hypnosis is often taught to an individual by introducing them to hetero-hypnosis (where a hypnotist is present) first and then increasingly encouraging the individual to take growing responsibility for administering the hypnosis to themselves (Lynn, Kirsch, Neufeld & Rhue, 1996). In self-hypnosis it is the client who does the work, not the therapist, and practice will make the individual more competent at self-hypnosis (Aroaz, 1985). Self-hypnosis has the advantage of reducing reliance on the therapist whilst increasing the subject's feeling of control (Martinez-Tendero et al, 2001). Self-hypnosis is used to enable the subject to extend the treatment delivered by the therapist (Orne & McConkey, 1981; Byron,

2002). Self-hypnosis is hypnosis practised by an individual on themselves, and Fromm & Kahn (1990) noted an important research based finding, that clients experienced themselves differently during self-hypnosis.

Self-hypnosis is different from hetero-hypnosis because subjects are involved in managing, inducing and directing their own experience (Friedberg, Golden & Dowd, 1987; O'Neill, Barnier & McConkey, 1999). In self-hypnosis Fromm, Brown, Hurt, Oberlander, Boxer and Pfeifer (1981) maintain that whilst the individual's attention is less focussed than in hetero-hypnosis, imagery is richer. Also participants are just as amenable to suggestions under self-hypnosis as under hetero-hypnosis (Ruch, 1975). Even so there may be limits for the individual in self-hypnosis when applying certain therapeutic techniques particularly at Yapko's (2003) stage three (therapeutic utilization) which may require a degree of practice. Age regression, which allows the individual to go back in time to revisit the past, would be an example of this (Hadley & Staudacher, 1996; Alman, 2001).

A further criticism of self-hypnosis is that it may require a greater effort, at least in the beginning, because the subject is both giving and receiving instructions (Martinez-Tendero, Capafons, Weber & Cardena, 2001). However the behavioural effectiveness of hetero-hypnosis and self-hypnosis are thought to be comparable (Johnson & Weight, 1976). The efficacy of self-hypnosis and indeed hetero-hypnosis is considered to relate to the individual's expectation, attitude, motivation, co-operation, and amount of absorption in thought and imagination that is suggestion related (Spanos & Barber, 1976; Barber, 1979) and in the way suggestions are directly or indirectly delivered (Yapko, 2003). Both ways have their place. Direct suggestions are considered authoritarian e.g. "close your eyes", they

are requests for particular responses and have the potential to stimulate resistance in the client. Indirect suggestions are considered more subtle and permissive e.g. "I wonder what you will think of, that will allow you to happily close your eyes?" Indirect suggestions permit clients to uncover their own meanings in the suggestions, and can even enable the therapist to help without intruding into the client's privacy, by the client not having to say what the problem is they wish to work on (Dowd, 2000).

Fromm and Kahn (1990) introduced the idea to clients that through self-hypnosis they could take a more active part in the therapeutic process, and that it is rehearsal for the new 'ideal self' which they are aiming to become. The effect is empowering, placing as it does, control in the client's hands. Self-hypnosis can often be facilitated for the participant, by the therapist making specific tapes for the client to take away and to practise hypnosis at home, to develop mastery of important aspects of the clinical session (Lynn, Kirsch, Neufeld & Rhue, 1996). A further advantage of self-hypnosis is that it encourages growth and independence in the client and helps them to confirm that they do have control in their lives (Yapko, 2003). It has been suggested that the term self-hypnosis may reduce rejection of the thought of being hypnotized because it *"emphasises the personal control and lack of risks"* (Capafons, Cabanas, Alarcon, Espejo, Mendoza, Chaves & Monje, 2005, p73).

In coping with stress related tension and anxiety, self-hypnosis has been described as effective and free from risk (Soskis et al, 1989). However, a weakness in such a statement is reflected in the statement that, *"only a few controlled clinical studies have been conducted"*, (O'Neill et al, 1999, p69), and there is clearly a need for

further controlled clinical studies to be conducted, not least to inform and guide practice as well as to develop an evidence base. Some studies which confirm significant benefits of employing self-hypnosis include Ashton et al (1997) for reduction of anxiety following heart surgery, Hammond (2001) for treatment of chronic fatigue, Anbar and Hall (2004) for safe efficient treatment of childhood habit cough, and Anbar and Geisler (2005) who found a large number of Pediatric Pulmonary Centre patients, with respiratory symptoms and resulting psychological issues, appeared to benefit from instruction in self-hypnosis.

In the study by O'Neill et al, (1999) it was acknowledged that future research could focus on a gap in their research, namely, treatment differences between self-hypnosis and relaxation to examine maintenance of therapeutic gains over time. It is an aim of this research study to build on this previous research to do just this, by following up participants for six months after the final intervention. As the participants in this current study are young people I shall next consider the use of hypnosis with this particular age group.

1.3.9 Hypnosis with Children and Adolescents

There are records which show the use of hypnosis with children for over the past two hundred years (Weitzenhoffer, 1959; Gardner, 1980). Hypnosis with children and adolescents can be different from hypnosis with adults, not least with regard to developmental issues such as language, cognitive skills and social awareness (Gardner, 1981). It has been observed that children are more susceptible than adults to being hypnotized (London, 1962) and that this peaks in the preadolescent years

(Morgan & Hilgard, 1973). Also that the ability of the subject to experience hypnosis is a skill of the subject (Olness & Kohen, 1996).

Gardner (1974) noted another difference between adults and children when she proposed that children for the most part do not experience the amount of anxiety about control which adults do, and which can undermine responsiveness to hypnosis. This proposal however does not appear to have been tested by research. Accounts published of the use of hypnosis to manage children's anxieties tend to relate either to medical and dental procedures (Hilgard & Le Baron, 1984; Anbar & Hall, 2004; Anbar & Geisler, 2004) or to schooling and the latter mostly deal with achievement or attendance (Krippner, 1966; Olness & Kohen, 1996; Byron, 2002).

When using hypnosis with children and young people it is important to take account of their level of social, emotional, cognitive and language development, as well as level of attention, and to modify the approach to take account of this, to make the interaction as relevant and meaningful as possible, and to avoid treating them simply as small adults (Wall, 1991; Olness & Kohen, 1996; Vandenberg, 2002). This illustrates the importance of the therapist who is using hypnosis, having had training in and knowledge of child development.

Young children can be very active during hypnosis and appear restless. Even some adolescents sometimes move about constantly during hypnosis (Olness & Kohen, 1996; Yapco, 2003). Some children respond better to hypnosis if they have their eyes open (London & Cooper, 1969). There are gradual increases in self-awareness during adolescence concerning how one appears to others and to oneself, which the

therapist needs to be sensitive to (Wall, 1991). A reflection of this is the emergence of eating disorders at this age and stage (Torem, 1991, p230).

Central to experiencing school anxiety among school children is lack of confidence in meeting the expectations of others (Phillips, 1977). Metaphors, relating to the young person's interests and life, are often used successfully in hypnotherapy with young people (Wall, 1991; Yapko, 2003). Hypnotherapy is different from hypnosis in that whereas hypnosis may be described as an altered state of consciousness, hypnotherapy refers to a mode of treatment, delivered whilst the participant is in a state of hypnosis, using particular techniques and with precise therapeutic targets (Olness & Kohen, 1996). Hypnotherapy can be an important means of helping children to feel in control, by encouraging them to modify their perceptions and to develop control strategies (Houghton, 1988). Hypnotherapy can make a valuable contribution to preventative mental health work with school children (Setterlind, 1984). Indeed hypnosis combined with psychological models, focussed toward growth rather than sickness, and incorporated into preventative mental health programmes for the benefit of all children is advocated by Houghton (1988). There is a danger in this country that the value of hypnotherapy with children and young people will not be wholly recognised without more controlled research and critical evaluations (Ioannou, 1988).

In regard to the use of hypnosis with children, knowledge and techniques and evidence of its effectiveness are reported in Wester and O'Grady (1991) and Olness and Kohen (1996) papers which alleviate to some extent the concerns expressed by Houghton (1988, p288) that, *"There is little by way of any clearly enunciated 'case*

law' to guide child hypnotherapists in their uses of hypnosis in the development of treatment programmes for children's anxieties". It is clearly desirable however, as was pointed out earlier in this section, that the use of hypnosis with children should be limited to professionals who work with children (Olness & Kohen, 1996, p88). It is also important that the child has some motivation or commitment (an aspect considered more fully later in this section) to want to change the way things are. Otherwise hypnosis is unlikely to be effective, and it is in such a situation that the therapist may be unable to agree to a parent request to use hypnosis with their child (Hammond, 1990).

This study aims to explore the use of hypnosis particularly in the treatment of anxiety in adolescents. An aspect of the changes experienced in adolescence relate to how adolescents feel about themselves, which is called self-esteem. Self-esteem relates to the difference between how an individual thinks they are and how they would like to be (Butler, 2001). It is of note that in studies with young people who showed discrepancies between their perceptions of their ideal selves and with their perceptions of their real actual selves, referred to as self-esteem, anxiety has been found to correlate significantly (Cowen, Zax, Klein, Izzo & Trost, 1965). For this reason self-esteem is a measure which will be included in this current study.

1.3.10 Self-hypnosis with children and adolescents

"Self-hypnosis is the means by which people are taught to use the natural process of self-talk, cognitions, and imagery for their own benefit, not against themselves" (Araoz, 1995, p23). Children have been noted to have very active fantasy lives and a particular ability to use self-hypnosis (Alman & Lambrou, 2002) and to be able to

learn and profit from self-hypnosis (Olness & Kohen, 1996). Evidence for Alman and Lambrou's assertions appear to be based on clinical case studies with no control groups involved. The evidence base for Olness and Kohen's assertions have a more scientifically rigorous foundation. They refer to the following controlled study by Olness, Culbert and Uden (1989) in which 57 children between 6 and 12 years old were randomly assigned to 30 minutes self-hypnosis practice plus instructions to increase salivary immunoglobulin A (S-IgA). When compared to attention controls and to a group who practised relaxation only the self-hypnosis group showed significant increases in S-IgA. Of further significance is that this work has been successfully replicated by Hewson-Bower (1995).

Olness (in Yapko, 2003, p549) describes a further follow up study by Hewson-Bower. In this study the use of self-hypnosis by children to change immune system responses has been verified by Hewson-Bower who found that children who learned and practised self-hypnosis recorded a reduction in number of respiratory infections and also less days of illness if they did catch a respiratory infection. *"S-IgA the form of IgA present in secretions, seems to mediate protection by interfering with microbial adherence to mucosal surfaces and by inhibiting the penetration of potentially harmful antigens into mucosal tissues"* (Ahl & Reinholdt, 1991).

Children whilst usually responsive to self-hypnosis have less experience and their development is more limited than adults and therefore require different approaches (Vandenberg, 2002) though this appears to be counter balanced by being more responsive and to have a greater capacity for play and role play than adults. An example of this responsiveness is provided by Alman and Lambrou (2002) in which

a ten year old child with allergies and asthma is described, following learning self-hypnosis, to have been able to reduce his attacks in both frequency and intensity by some eighty per cent. A variety of ways are listed in which self-hypnosis can be of benefit to children some of which include improving study and concentration skills, improving sleep and to reduce test and performance anxiety (Alman & Lambrou, 2002).

What appears to be important in teaching self-hypnosis to children is for the therapist to establish alliance and rapport and to listen carefully to the child so as to be able to use words which are culturally and socially relevant and meaningful to their life as well as enabling them to feel listened to and understood and involved, even to the point of confirming to the child in front of the parent that it is the child's responsibility to remember to practise and not for the parent to remind them. Self-hypnosis can also provide the child with a sense of mastery and control which is one of the reasons it is thought to be helpful in childhood depression (Olness in Yapko, 2003). This mastery is encouraged when teaching self-hypnosis to children by Olness (Yapko, 2003, p549) who helps the children to identify their self-control by use of a biofeedback monitor to enjoy seeing evidence registered on a screen of their ability to control body responses such as changing the temperature of their finger tips. Gardner (1981) refers to a successful three step approach to teaching children self-hypnosis in one session.

In summary it is clear from the literature that children and adolescents are usually responsive to self-hypnosis in a variety of ways. Establishing rapport is seen as an influential element in teaching the skill of self-hypnosis as is the use of language

which is culturally and socially relevant for the individual. In addition it appears that operating this technique can give the young person a sense of mastery and control.

1.4 Associated factors

1.4.1 Locus of Control

"The perception of control is a process, the exercise of an expectancy regarding causation; the terms internal and external control depict an individual's more common tendencies to expect events to be contingent or non-contingent upon their actions". (Lefcourt, 1976, p153).

The term locus of control was introduced by Rotter (1954). Locus of control refers to a dimension with at one end the belief by an individual that whatever happens to them is not within their control (an external locus of control), whilst at the other end what happens to them is completely within their control (an internal locus of control), (Rotter, 1954). It is not however intended to infer that perception of control is a trait, rather that it can vary within an individual depending upon the event. A positive correlation has been noted between self-esteem, internality and achievement (Lawrence, 1996). On a measure of locus of control, anxiety disordered patients were observed to typify themselves as powerless in coping with hardship and also to be unable to use the help of others to cope with hardship (Sandler & Lakey, 1982). It has been noted that higher locus of control scores (i.e. more external and more powerless) were associated with a greater history of anxiety disorder (Andrews et al, 2003, p.11).

Studies have illustrated how teachers are able to teach students to become more 'internal' and in turn increase their attainments (De Charms, 1976). One might hypothesise therefore that an experience or outcome which improves an individual's situation eg. reducing anxiety, and which the individual has been actively involved in contributing to eg. application of relaxation techniques, could lead to increased internal locus of control. If so, this may suggest that locus of control could be a useful measure or predictor of the effectiveness of self-hypnosis, and also of the individual who is practising it developing a more positive, optimistic outlook. This study will explore the relationship between locus of control and outcome of treatment.

1.4.2 Belief and Expectancy

"Men are not moved by things but the views they take of them," (Epictetus).
"Whether you believe you can or whether you believe you can't you will probably be right," (Henry Ford).

These quotes aptly imply the close relationship between belief and expectancy and this appears to be particularly relevant for hypnosis. *"It is clear that response expectancies play an important role in hypnosis, in the maintenance of many emotional disorders, and in all forms of psychotherapy,"* (Kirsch, 1990, p.200). Response expectancies are described as expectancies for non-volitional responses, following particular kinds of stimulation where the individual believes they have no voluntary control of responses where the stimulation is allowed or cannot be avoided, (Kirsch, 1990). The significance of positive expectations in influencing

treatment outcomes is identified and stressed in most models of psychotherapy (Yapko, 2003).

People's beliefs and expectations are described as extremely important factors by Shor (1971) Mussell et al (2000) and Kirsch (1990) who states of expectancy, in relation to hypnosis, *"the effects of goal directed imagery appear to be mediated by expectancy,"* (Kirsch, 1990, p143). There are various accounts in the literature of the role of expectancy in hypnosis, (Sarbin, 1950; Orne, 1959; Kirsch, 2005a). Indeed a conclusion by Shor (1971) was that all serious workers in hypnosis have reached the conclusion that a subject's beliefs and expectancies about being influenced somehow play an intrinsic role in inducing hypnotic behaviour. Similarities in the effects of placebos to the effects achieved by hypnotic suggestion (Glass & Barber, 1961) are used by Kirsch (1990, pp145) to support the view that, *"hypnotic responses are hypothesized to be a function of a subject's hypnotic response expectancies."* Perceiving a situation to be hypnotic, and beliefs by an individual about their degree of susceptibility to hypnosis are both important aspects of expectancy, beliefs being similar to expectancies (Barber, Spanos & Chaves, 1974).

A significant feature of many therapies since the early hypnotists has been the changing of faulty beliefs or misconceptions and most treatment methods involve as an essential goal, the changing of misconceptions (Raimy, 1975). Response expectancies are noted to have significant effects on behaviour and subjective mood as well as physiology, being important causal factors in the etiology of various problems including anxiety disorders (Kirsch, 1990). Shor's knowledge of the

influence on subjects of their expectancies was utilized in a strategic way and is indicated in his following observation, *"the skilled hypnotist tailors his approach to the needs and reactions of his individual subjects. He keeps himself constantly alert to ongoing changes in the subject's expectancies and performance and adjusts his hypnotic manoeuvres accordingly. In other words the skilled hypnotist has learned to bend and redirect subtle expectancies so that they converge to help rather than hinder the hypnotic response,"* (Shor, 1971, pp163). Suggestion is greatly utilised in hypnosis, and in accepting a suggestion an individual is then believing and expecting it to happen (Kirsch, 2000).

Involving the participant directly in discussing their beliefs and expectancies for the experience of being hypnotized, is necessary to involve them cooperatively in the process (Duncan, Miller & Coleman, 2001; Scheflin, 2001). Recent research involving the relationship between hypnosis and expectancy includes Rossi (2002), Kihlstrom (2003) and Ghandi and Oakley (2005). Ghandi and Oakley for example found evidence that *"the hypnotic procedure produced a modest increase in suggestibility when it was called relaxation but a very significant increase if it was labelled hypnosis."* If subjects in hypnosis can be expected to experience alterations in consciousness that correspond to their beliefs about hypnosis, then this suggests a subject's expectancies and beliefs are potentially an important area to consider and expectancy will be explored with participants in this current study.

1.4.3 Commitment

An individual's perception of choice, that is their feeling of being free to act in any way, appears central to any demonstration of commitment (Kiesler, 1971). The

perception one has of being free to choose to behave in a particular way is then an important aspect in commitment theory. The definition of commitment used here is, "the pledging or binding of oneself, as in committing oneself to a course of action". In attempting to reduce the inconsistency between how a subject feels eg. anxious and how a subject wishes to feel eg. calm, the degree of commitment to change in the desired direction is likely to have an effect on the outcome. Exactly what a person is prepared to do should depend logically on how committed they are to the behaviour, in other words the greater the commitment, the greater the effect.

Commitment is described as inert in itself and lacking a motivational component because it does not oblige us to do something but influences the way we respond to situations that do oblige us to do something because of its *"binding or freezing properties"* (Kiesler, 1971, p63). Commitment in an individual gives them an anchor by which *"beliefs, attitudes and behaviour are marshalled and organised which influences the way one evaluates and responds to subsequent appeals or demands,"* (Janis, 1977, p298). This is in contrast to the explanation given by Janis and Mann (1977) who refer to commitment as tending to stabilise a decision as it adds new incentives in favour of the course of action chosen thus leading to an increase in motivation. The magnitude of addressing client commitment to treatment goals as an ingredient of the curative process is recognised in Mussell et al (2000).

In view of the above, eliciting level of commitment from subjects was felt to be an important measure for this study to incorporate, with regard to how much subjects

wanted to achieve the personal targets which they had set for themselves, and that strategically this should be done at the outset.

1.4.4 Effort

Effort is a critical variable related to commitment and it has been suggested that the more effort in the response the more readily learned is the response (Kiesler, 1971). Also in considering the adaptive importance of effort, Little (1998, p295) noted, *'The more children believe that effort is an important constituent of school outcomes, the higher is their actual performance.'* It was hypothesised by the writer that degree of effort could play an important part in influencing the outcome achieved by the student with regard to the relaxation technique practised. The importance of the part played by effort in influencing therapeutic outcome is acknowledged in Altice and Friedland (1998, p503) as *"explaining much of the magnitude and durability of the therapeutic response"*. Stone (2001, p865) stresses the import of supporting patient's efforts and Betts (2003, p534) highlights the critical aspect of the personal effort the patient is prepared to put into the treatment. Feinstein, Josephy and Wells (1986, p413) note the importance of consideration of, *"the patient's effort or collaboration"* and Dezii (2001, p3) links patient effort with indicating *"intent to comply with the prescribed therapy"*.

As learning and practice of skills to manage anxiety requires application and effort, it was decided that this study would measure and monitor the effort which subjects felt they were making to learning and employing the relaxation technique they had been allocated to. However it was felt to be important that it was done in such a way that whilst encouraging them to reflect on their degree of effort it did not leave them

feeling guilty if their effort was limited. If this could be achieved it was felt to make it more likely that participants would give an honest response when asked how much effort they felt they were making in practising the particular relaxation technique they had been taught. To try to achieve this it was decided that the effort question would be asked immediately following the question, "how improved do you feel ?" in the hope that they might make a connection between the two but without it being discussed. This would immediately follow their completion of ratings for their personal targets.

1.4.5 Conclusion

This literature review chapter has identified that anxiety can be a product of internal states, as well as external states that are stressful, and can affect student performance. Also, whilst up to a certain point anxiety appears to facilitate the performance of individuals, beyond this point it appears to have an increasingly negative affect on performance. Anxiety and depression, have increased for boys and girls since the mid 1980's (The Nuffield Foundation, 2004). The prevalence noted of anxiety disorders in children in the 11 to 15 age group in Great Britain confirms a need for research and collection of evidence of successful ways to help this vulnerable group of young people.

School, it has been noted, can sometimes inadvertently provide students with various sources of anxiety. The consequences of anxiety for some students at school was noted to be wide ranging and to negatively influence academic, social and personal development and functioning and potentially lead to many school related difficulties. The advantages and disadvantages of various measures of anxiety and

their suitability for this study were considered. It is clear that further research would be beneficial which helps schools to identify what they can do to reduce or prevent the school contributing to anxiety in students.

Literature on relaxation techniques, which have been found to have the potential to enable students to regain control of their anxiety, was explored. A variety of approaches were identified that facilitate relaxation and two of these approaches, muscular relaxation and self-hypnosis were examined, particularly for the purposes of being used in this study. Surprisingly, the review has found that whilst there appears to be general agreement on how to induce hypnosis, and its use to facilitate therapeutic intervention, there is not one universally agreed definition of what hypnosis is. Hypnosis and self-hypnosis were explored and particularly with respect to their efficacious application by children and adolescents with the empowering effect noted of this self-help approach.

This review of the literature has indicated that locus of control may be influenced by mastery of relaxation and this relationship will be explored in the study. Additional factors identified in the literature review as worth pursuing in this study with the potential to influence outcome effects of relaxation training for management of anxiety include the expectancies of participants, their commitment to change and their effort expended in applying the relaxation techniques.

This review indicates that further research would be useful which could help schools to identify students with anxiety and guide them to help students learn

how to appropriately manage their anxiety, as this could facilitate student access both to their own potential and also to the educational provision available in the school.

The positive impact on self-esteem of students who are taught how to successfully intervene in reducing their own anxiety could be considerable and will be incorporated into this study. Research questions which will be addressed by this study with regard to student anxiety and performance will include:

1. Does teaching self-hypnosis or progressive muscular relaxation to anxious students enable them to reduce their anxiety?
2. Does the use of self-hypnosis enable anxious students reduce their anxiety more than the use of progressive muscular relaxation?
3. Is high commitment to improve associated with greater change in the measures over time?
4. Is high expectancy to improve associated with greater change in the measures over time?
5. Are achieved changes in anxiety reduction maintained over time?
6. Are achieved changes on the other measures maintained over time?

CHAPTER 2: PILOT

2.1 Introduction

The pilot study provides an outline of the procedures followed using two approaches to teaching skills for anxiety management, muscular relaxation and self-hypnosis. Three students were randomly assigned to each approach. Lessons learned from piloting the procedures for each approach are referred to, as are observations on the sensitivity or otherwise of the various measures employed. A number of changes were introduced as a result of insights gained from the pilot. In addition some changes resulted from further reading during and subsequent to the pilot.

2.2 Purpose of pilot study

The literature review provides research evidence that anxiety in students can cause impairment of academic and social performance (Gaudrey & Fitzgerald, 1971; Spielberger,1980; Hallam,1996). Relaxation training is helpful for people who are tense, anxious or cannot relax, as relaxation can relieve mental and physical tension, Kennerley (1990). Muscular relaxation and hypnosis provide two approaches to relaxation training. Clinical researchers, particularly Golden, Dowd and Friedberg (1987), assert that hypnosis can be helpful in treating fears, stress related disorders and anxiety. Others, notably Bernstein and Borkovec (1973), Jacobson (1983), have shown the clinical benefits of training in progressive muscular relaxation.

The purpose of the pilot study was to trial the procedures for the teaching of muscular relaxation and self-hypnosis with a small number of students in order to

gain insight into the practicalities and efficacy of administering these techniques and also to see if any of the procedures followed would benefit from modification prior to beginning the main study. In addition the pilot study would provide an opportunity to confirm the appropriateness or otherwise of the measures selected, the time taken to administer them and their sensitivity to measuring change in the participants. The pilot study would also provide the opportunity for the researcher to observe and compare the response of participants to the two approaches and to collect initial data on how effective the treatments are perceived to be, by the participants and their parents, for increasing control of anxiety and improving performance.

2.3 Methodology

2.3.1 Introduction

The literature review provides evidence for the efficacy of the two treatment techniques selected for this study to help individuals to reduce their anxiety. For using muscular relaxation these include Bernstein and Borkovic (1973), Benson (1988), Lichstein (1988), Titlebaum (1988), Kennerley (1990), Davis (1995). For using hypnosis these include Barber, Spanos and Chaves (1974), Edmonston (1981), Golden, Dowd and Friedberg (1987), Rhue, Lynn and Kirsch (1994), O'Neill, Barnier and McConkey (1999), Yapko (2003).

2.3.2 Research design

The research design involved a comparison of two treatment approaches which were

taught to students to enable them to manage their anxiety a) muscular relaxation and b) hypnosis /self-hypnosis. Students were randomly allocated to the two groups. Both approaches were matched for the number of participants, the number of sessions and also the time spent with subjects and the number of follow up sessions. At each session the participant was always accompanied by the same parent.

2.3.3 Progressive Muscular Relaxation.

A process checklist for participants receiving muscular relaxation (Appendix 1a) was developed in order to control variables such as contact time with therapist and also to control for consistency in the teaching of the technique to participants and to avoid omissions. Guidelines for muscular relaxation training (Appendix 2) were read out to participants at session 1. Participants also received in session 1 verbal instructions for muscular relaxation (Appendix 2) which were recorded on audio cassette tape and given to participants so they could practice between sessions. These instructions appeared to be quite adequate and no modification was necessary.

2.3.4 Hypnosis

A process checklist for participants receiving hypnosis (Appendix 4a) was developed in order to control for variables including contact time with the therapist and also to control for omissions and for consistency of delivery to subjects. Guidelines for self-hypnosis training (Appendix 5) were read out to participants at session one and a copy was given to participants to retain for reference. After each

of sessions one and two an audio tape of the session was given to the participant to take away and practice listening to between sessions.

2.3.4.1 Measures

It was hypothesized that if participants were enabled to take greater effective control of the management of their anxiety then it was likely there would be changes and improvements in a variety of areas including: reduction of anxiety, reduction in hopelessness; improvement in self-esteem; improved relationships at home; improved functioning at school. Therefore a number of questionnaires were selected to measure these constructs.

At session one in both approaches the measures were taken and repeated again following the final intervention session. Most of the measures involved self completed questionnaires as measuring subjective views and cognitions can only be assessed in this way. Self completed questionnaires have the added advantages of enabling the participant to be engaged in the assessment process and also lowering the demands for verbal expression placed on the participant (La Greca, 1990). An account of the measures used follows section 2.3.5.2.

2.3.4.2 Administering the measures

Administering measures benefits from careful thought and planning. Each session included a focus on confidentiality, motivating participants and establishing trust (Frazer & Lawley, 2000). The role of memory is an important aspect of answering any questionnaire as is the importance of the participant understanding the question (Tourangeau, Rips & Rasinski, 2000) and can have implications for accuracy of the

response. A benefit of face to face administration of questionnaires was that it provided opportunities for clarification if needed by the participant. The physical presence and behaviour of the researcher/therapist can influence the interpretation of the questions and how they are answered (Aiken, 1997) and the therapist therefore needs to adopt awareness of this to maintain a neutral approach. Apart from the Byron Personal Targets Scale the questionnaires were self-administered. Self administered questionnaires include several advantages in that they usually ensure a high response rate, a minimum of interviewer bias and the benefit of some personal contact (Oppenheim, 1973).

2.3.4.3 Beck Anxiety Inventory

This is a scale (Appendix 3) of 21 items developed to measure the severity of self-reported anxiety in adolescents and adults. Each symptom of anxiety is rated on a four point scale of from 0 to 3 with a maximum score being 63. Scores of 26 to 63 indicate severe anxiety. Younger patients report more anxiety than older patients (Beck & Steer, 1993). However whilst a few adolescents were included in the assessed samples by Beck, Epstein, Brown and Steer (1988), reliability and validity of the use of the BAI with adolescents has not been tested (Beck & Steer,1993). The BAI-Y on the other hand was developed for use with adolescents. Items include emotional and physiological symptoms linked with anxiety in addition to worry.

Completion of the scale takes from 5 to 10 minutes. The total score provides an estimate of the overall anxiety being reported by a participant. It was hypothesized that as the participants improved their management of anxiety so they would record reduced scores on this measure of anxiety. This inventory has demonstrated a high

degree of reliability and validity in young populations (Jolly, Aruffo, Wherry & Livingston,1993) and *"clinical usefulness and sound psychometric properties for adolescents"* (Beck, Beck & Jolly, 2001, p3).

2.3.4.4 Beck Anxiety Inventory-Youth (BAI-Y)

This measure (Appendix 6) was discovered and included towards the end of the pilot, as it claimed to provide a measure of anxiety for the specific age group involved in this pilot study. The scale is taken from the Beck Youth Inventories of Emotional and Social Impairment consisting of five self-report measures which may be used in combination or individually with the 7 to 14 age group. The items in the BAI-Y include fears about health, school, getting hurt and worrying together with anxiety linked physiological symptoms. Items tap into three aspects of anxiety and fear response, namely cognition, behaviour and physiology (Graziano, DeGiovanni & Garcia, 1979). It was hypothesized that as the participants improved their management of anxiety scores recorded on this measure would reduce. Completion of the BAI-Y takes between 5 to 10 minutes.

2.3.4.5 Beck Hopelessness Scale

This measure (Appendix 15) was considered because underlying various mental health disorders is the psychological construct of hopelessness. The scale attempts to evaluate participants' negative attitudes to the self and to the short term and long term future and follows Stotland's (1969) concept of hopelessness. All the participants in the pilot had anxiety underlying their difficulties and it was hypothesized that feeling more in control as a result of successful intervention would help them to feel more optimistic about the future and more hopeful with a

consequent reduction in hopelessness. Administration and completion takes approximately 10 minutes.

2.3.4.6 Butler Self Image Profile (SIP-A)

Construing self is thought to be an essential part of psychological functioning. In order for an individual to be functionally adaptable it has been proposed that a positive self concept is fundamental to this (Harter, 1990). The SIP-A (Appendix 14) measures self-image and self-esteem of adolescents from 12 to 16 years of age. Self-esteem is measured by comparing where individuals see themselves on various constructs most of the time with where they would like to see themselves. It is a reflection of how they feel about themselves. Self image is measured by how individuals think about themselves and describe themselves and where they place themselves on what they think of as important dimensions. Participants measure themselves as "how I am" on a 0-6 Likert type scale against 25 items. It was hypothesized that as participants improved their management of anxiety and began to feel more empowered this would be reflected in improved self-esteem. This measure takes approximately 15 minutes to administer.

2.3.4.7 Byron Personal Targets Scale

This measure (Appendix 10) was developed by the writer. At the first session participants are helped to establish a list of things in their life which they would like to see change as a result of learning to use the relaxation technique which they are to be taught. Items on the list become known as personal targets. Each target is rated by them at each session on a Likert scale from zero to ten.

It was hypothesized that as participants increased their management of their anxiety so this would be reflected in enabling them to move closer to a mastery level on each of their personal targets. This measure (Appendix 11) provides an initial baseline measure and also subsequent measures of progress over time when administered at each of the other sessions and compared with the baseline measure. This measure was administered at every session and not just at pre and post intervention. The personal targets measured included outcomes which participants said they would like to achieve as a result of working with the therapist and learning and applying the relaxation technique. Therefore personal targets varied from participant to participant.

2.3.4.8 Byron Effect on Home Life Scale.

This measure (Appendix 16a & 16b) was developed by the writer. Many parents become aware that issues concerning school can often spill over into the home and be reflected in the student's behaviour at home with a greater or lesser effect on life at home for everyone in that household and their relationships with each other. It was hypothesized that as the student achieved greater management of their anxiety so this could be reflected in reduced tension at home and improved family relationships and that this would be perceived both by the student and the parent. The measure was completed by both student and parent pre and post intervention. This Likert scale measure which only takes a few seconds to complete asks 'to what degree do the items covered by the identified "personal targets" affect life at home?' Both participant and parent are reminded, when replying, that nothing other than the specified personal targets should be considered.

2.3.4.9 Locus of Control Scale for Children (Nowicki-Strickland).

The locus of control measure (Appendix 17) focuses on the degree to which the participant sees a causal link between their own behaviour and later reinforcement. An "internal locus of control" is the degree to which behaviour and its contingencies are seen to be under the control of the participant. An "external locus of control" is considered to be present where consequences of behaviour are considered to be attributable to chance, luck or actions of others (Strickland, 1989). The questionnaire includes forty statements to which the participant has to respond with a yes or no. Out of all the questionnaires used in this study this questionnaire took the most time for participant to complete.

2.3.4.10 Goodman Strengths and Difficulties Questionnaire (SDQ)

The Goodman Strengths and Difficulties Questionnaire (Appendix 18) takes about 10 minutes to complete. It is an emotional and behavioural screening questionnaire. The version for 11 to 16 year olds was used. It seeks information on 25 attributes divided between 5 scales. The SDQ was used in this study because in young children reports of their emotions and behaviour, by their parents, are usually more reliable than by the children. In adolescence however parents can often be unaware of their children's emotional state. The SDQ was given not only to the participant but also to the parent (Appendix 19) and to a teacher (Appendix 20) at the participant's school enabling a comparison of three perceptions. It was particularly used in this study to see if parent's and school's perceptions of the participant's emotional state did reflect evidence of a difference of awareness of the participant's emotional state. The overall score can be used to predict if the young person is likely to have a significant problem.

2.3.4.11 Behavioural Academic Self-Esteem (BASE).

Developed by Coopersmith and Gilberts (1982) BASE (Appendix 21) measures student's academic self-esteem by direct observation of classroom behaviour. The teacher rates the frequency of a student behaving in particular ways. The BASE measures how often students take part in classroom activities, how well they "fit into" the classroom environment, how successfully they cope with criticism and failure, how compatible they are with their peers and finally their self-confidence. The most important purpose of the BASE scores is to distinguish between students who have high and low levels of academic self-esteem.

It was hypothesized that a pre and post application of this measure could provide teacher evidence of any change in these student behaviours in class assuming that student academic self-esteem would be influenced positively as they achieve greater control in managing their anxiety. This measure was introduced towards the end of the pilot phase. The BASE measure was expected to contribute school based evidence of changes in academic self esteem in class as the student's management of anxiety improved.

2.3.4.12 The Parent Satisfaction Questionnaire

Noting the growing interest in the assessment of mental health services by consumers, Stallard (1996), a questionnaire kindly provided by Stallard was slightly modified (Appendix 22) and introduced during the pilot phase. This was a quality assurance measure which it was felt could be a useful source of information from parents on the service they perceived they and their child to have received. Patient satisfaction is recognized as significant in measuring quality and outcomes

(Department of Health, 1989; Stallard, 1994). This measure is completed by parents one month after the intervention received by their child.

2.3.4.13 Limitations of Questionnaires

Using self-report questionnaires to measure psychological characteristics has arisen from the supposition that asking a direct question of an individual is the best way to find out about what an individual thinks (Hammond, 2006), however questionnaires do have limitations and these are referred to below and also in the discussion chapter (sections 5.4.12 and 5.4.13) and in the conclusion chapter (section 6.1).

Accuracy of participants' responses

A criticism of questionnaires particularly when used in research is the issue of response bias when a participant consistently fails to provide accurate answers perhaps due to the participant wishing to reflect a certain image of themselves. In addition a participant may be biased in wishing to seek approval with his or her responses and so be influenced to respond with what they think would gain approval rather than respond with what they really think. This may possibly be amplified when completion of questionnaires which relate to the treatment are being administered by the therapist. An alternative issue can occur if a participant does not sufficiently reflect on a statement before answering.

The exercise of caution is advocated when interpreting changes in rating scales over time. Contributing to this is a tendency which has been observed for participants when completing a post-measure to report fewer problems than when completing it as a pre-measure (Sclare, 1997). Further criticisms of questionnaires include when a

participant lacks the knowledge to answer or when another form of response bias referred to as a response set is present where a participant has a predisposition to answer with a yes or no. Also the participant is only able to rate what they have had the possibility to observe and in addition some participants may be more or less observant than others whilst some may have more or less accurate ability to recall their observations.

Length

The length of the questionnaire is important as a questionnaire that looks long or takes a long time to complete can be tedious and even demotivating for the participant to complete. In the case of shorter questionnaires they can be less reliable and less valid in their assessment of psychological constructs.

Assumptions

Even with a questionnaire that meets reliability and validity requirements it would be unsafe to assume that is the end of considerations. The preparation and instructions given to the participant, the state the participant is in when completing it including how fresh or tired they are and how motivated, not to mention how comfortable they are in the questionnaire environment, can all have an effect on the accuracy with which the questionnaire is completed. This becomes more critical and needs to be monitored carefully when several questionnaires are used at the same session, as was the case in this study.

Limitations relevant to particular questionnaire

Any limitations observed in the questionnaires before during or after administration is noted under the heading for that questionnaire in sections 2.3.5.2 to 2.3.5.11. The Byron Home Life Scale and Byron Personal Targets Scale which were developed for this study are not standardized.

2.3.4.14 Other Evidence Collected

Other evidence collected included any letters received from parents of participants (Appendix 12) which included comments on changes observed in their child during the period of the intervention.

2.4 Sample / participants

Six secondary school students, four girls and two boys, took part in anxiety management training for students who were anxious and worried to the extent that their performance in school was noticeably affected and reduced. Anxiety had been evident for at least the previous six months with evidence of school attendance and performance in school being affected. Three participants were allocated randomly to the hypnosis / self-hypnosis group, two girls and one boy, and three participants to the muscular relaxation group, two girls and one boy. All participants presented with measures of anxiety.

Presenting problems at referral included:

Hypnosis/self-hypnosis group.

Participant V. (exam anxiety and distress)

Participant D. (social-communication difficulties/school attendance)

Participant G. (school attendance/peer relations)

Muscular relaxation group.

Participant M1. (fear of being unable to cope with FE College)

Participant L. (peer relationship difficulties, distress with news , fear of walking alone)

Participant M2. (Obsessive Compulsive Disorder, school attendance)

2.5 Procedure / Programme

2.5.1 Initial engagement of the participants

On receipt of the referral of the student, either from an Outreach Counselor or a GP, telephone contact was made with the parent. A brief outline was provided of the potential benefits of using anxiety management techniques. If interested the parent was asked to talk to their child to see if they would be interested in hearing about a way of them being able to help themselves to feel more in charge and in control. If they were interested then they telephoned to make an appointment. The student was randomly assigned to one of the two groups, hypnosis / self-hypnosis or muscular relaxation. At the appointment the benefit of learning to help themselves to become more in charge and in control by being taught an anxiety management technique (using the allocated technique of either muscular relaxation or self-hypnosis) was explained and explored. They were invited to ask any questions they wished. At the end of the appointment they were asked to go away and discuss what they thought. If they decided they wanted to learn an anxiety management technique they were invited to telephone to make an appointment for the first session.

2.5.2 The self-hypnosis approach (see Appendix 4a. for process checklist)

A description of the four session approach can be found in Appendix 4b.

2.5.3 The muscular relaxation approach (see Appendix 1a. for process checklist)

A description of the four session approach can be found in Appendix 1b.

2.6 Outcomes / results

2.6.1 Descriptive statistics

Pilot results are recorded in Appendices 9a to 9j. These include line graphs comparing pre and post measures of the hypnosis group with the progressive muscular relaxation group. The results enable a variety of questions to be explored e.g. does self-esteem improve? Does anxiety decrease? Does home life improve? Do the self-hypnosis group or muscular relaxation group do better? The purpose of the pilot study is to lay the foundation for the main study. Therefore I shall include in the appendices consideration of how the instruments worked, how much time they took to administer and whether they discriminated between participants.

2.6.2 Beck Anxiety Inventory (BAI)

The BAI measure (Appendix 9a) operated successfully.

2.6.3 Beck Anxiety Inventory – Youth (BAI-Y)

The BAI-Y measure (Appendix 9b) operated successfully.

2.6.4 Beck Hopelessness Scale (BHS)

The BHS measure (Appendix 9c) operated successfully.

2.6.5 Butler Self-Image Profile (SIP)

The self-esteem measure from the SIP (Appendix 9d) operated successfully.

2.6.6 The Byron Personal Targets Scale.

The Byron Personal Targets scale (Appendix 9e) operated successfully.

2.6.7 The Byron Effect on Home Life Scale.

The Byron Effect on Home Life Scale (Appendices 9f (1), and (2)) operated successfully.

2.6.8 Locus of Control Childrens Scale (Nowicki-Strickland)

The Locus of Control measure (Appendix 9g) operated successfully.

2.6.9 Goodman Strengths and Difficulties Questionnaire (SDQ)

The SDQ measure (Appendix 9h (1), (2) and (3)) operated successfully.

2.6.10 The Coopersmith Behavioural and Academic Self-Esteem (BASE)

The BASE measure (Appendix 9i) operated successfully.

2.6.11 Parent Satisfaction Questionnaire (PSQ)

The PSQ measure (Appendix 9j) operated successfully.

2.7 Discussion

2.7.1 Expectancy

Administering the pilot provided the opportunity to reflect on the delivery of the two therapeutic approaches to anxiety management and to develop further the organization of the sessions. Realising the potential importance which could be played by the level of the participant's expectation of success, by their effort to use the anxiety management technique and by raising their meta-cognitive awareness of changes happening within them, several changes were planned for the main study so as to include measurement of these aspects.

2.7.2 Timing

Timing of the first session which included administering all of the pre measures was noted to be a potential problem in certain circumstances. The length of time taken to administer measures was noted to become an issue when the participant had a slow rate of responding and also when they were predisposed to talk frequently. To maintain the participant's attention it was observed that there was an optimum

amount of time within which to complete the measures and deliver the first session before there was danger of the participant's concentration, motivation and attention beginning to wane.

2.7.3 Difficulty obtaining measures

Pre and post measures from school were impossible to obtain if during the pilot a student transferred from year 6 in a Primary school to year 7 in a Secondary school. Therefore it was decided that participants in the main study would be included only from year 7 or above. It was also difficult with some schools to obtain completed measures returned in a reasonable amount of time, and it was noted that this could potentially be a difficulty in the main study. It was not possible to obtain post measures from schools for participants in year 11 if it was around the time of GCSE exams. This was because participants went on study leave and did not return to school after the exams and therefore the teacher was unable to complete observations on a child who was no longer at school.

2.7.4 Observation of verbal and non-verbal behaviour

At successive sessions with a participant the writer frequently observed changes in the non-verbal and verbal behaviour of participants and particularly over the period of the intervention. On one occasion a parent was noted to be answering questions put to the student by the writer and, in the case of another, to always focus on a negative outlook. An interview strategy was adopted to control this. It was considered to try to collect observations such as these during the main study where possible by making systematic notes. Ideally it could also be informative to video

the sessions and to involve an independent rater but the costs in time and other resources prevented this.

2.7.5 Letters

Letters were sometimes received from parents of students in the pilot referring to the changes and progress achieved by their children in practicing a relaxation technique (Appendix 12). It was decided to include an example of such letters received from parents of students in the main study to provide additional descriptive data.

2.8 Implications for the main study

2.8.1 Introduction

An effect observed during the pilot of using self-report measures was that they engaged the participant in a silent internal discourse in which their parent, though present, was not involved, thus giving the participant a degree of freedom and independence from parental control, as the parent was unable to comment in the way they could if measures were administered verbally. This freedom and independence may make a subtle contribution to the overall feeling sometimes reported by participants, and certainly intended by the writer, of a process which enables participants to experience a feeling of being empowered. The self-report measures also provided participants with an opportunity for enlightenment and to develop their self-awareness in confronting questions and forming views in order to answer the questions, some of which they may not have considered before.

The pilot proved useful in confirming which measures were relevant to retain for the main study and which to discontinue. The length of time taken to administer all of the measures was, for those participants who responded more slowly than the others, too long for the time available. Thus all the measures used were scrutinized to consider which might be excluded in order to reduce the overall time taken for the task of data collection.

2.8.2 Questionnaires to be excluded in the main study

2.8.2.1 Parent Satisfaction Questionnaire

Although it was only possible to use this measure with a small number of participants in the pilot, analysis of the few completed forms provided useful information and potential for improving service delivery as well as confirmation of satisfaction with the service received. A priority aim of the main study was to investigate changes in participants and particularly changes in their management of anxiety. This quality assurance measure, whilst appearing very useful, did not come within this main aim. It was therefore considered expendable when looking for ways to reduce the overall time taken for the first session.

2.8.3 Questionnaires to be included for the main study.

2.8.3.1 Beck Anxiety Inventory (BAI)

The BAI was felt to be a useful and sensitive measure which revealed changes in participants' behaviour and feelings over the time of the intervention and was retained for the main study.

2.8.3.2 Beck Anxiety Inventory – Youth (BAI-Y)

This instrument was introduced, after the pilot phase had begun, to measure anxiety in the participants and as a possible alternative to the Beck Anxiety Inventory. Of the two instruments, the Beck Anxiety Inventory appeared to be the more sensitive in that it registered a greater range of change of anxiety in the participants. Consideration was therefore given to use only the Beck Anxiety Inventory (BAI) in the main study. The BAI was developed with adults, with only a few adolescents included in samples examined by Beck, Epstein, Brown and Steer (1988). However, in view of the small numbers of participants involved, and only one participant completing the BAI-Y, it was finally decided to include in the main study both the BAI and also the BAI-Y, which was designed to be used with adolescents.

2.8.3.3 Beck Hopelessness Scale (BHS)

The data generated by the Beck Hopelessness Scale did not appear useful in that the degree of change measured in the participants appeared to be very small and also started from a very low score. However, although it was felt that the original hypothesis for including this measure was not supported by the data collected nevertheless it was also felt that the data could be more meaningful if gathered from a larger population and it was decided that the hopelessness measure would therefore be included in the main study.

2.8.3.4 Butler Self Image Profile (SIP)

It was noted that in administering the Butler Self Image Profile an extreme score of 0 or 6 was not always desired by the subject. An example of this being on the item, " mess about in class," when one subject remarked he did not want to score a zero

ie. to indicate not messing about in class, as this might cause him to be seen by his classmates as a "boff." The SIP appeared, from analysis of data collected, to be quite sensitive to measuring changes in self-esteem. The SIP was therefore retained for inclusion in the main study.

2.8.3.5 Byron Personal Targets Scale

The Byron Personal Targets Scale was noted to be very useful in helping the participant to clarify areas of difficulty and future goals. It was also observed to be quite sensitive to reflecting changes in the participant over the period of the intervention. This scale provided a useful baseline or starting point for the therapy to be delivered and which could be revisited at various stages of the intervention as needed. This measure was retained for the main study.

2.8.3.6 Byron Effect on Home Life Scale.

The 'effect on home life' scale attempted to measure the impact of the student's difficulties, referred to in their 'personal targets', on life at home and to identify changes over the period of the intervention. It measured the perceptions of both the participant and of the parent/carer. It was considered to generate valuable data as it often revealed differences in individual perceptions and different rates of perceived change. The 'effect on home life' scale was also retained for the main study in view of the sensitivity to change which it appeared to show.

2.8.3.7 Locus of control

It was decided to retain this measure for the main study to see if an increase in internal locus of control correlates with successful intervention, with increased self-esteem and with reduced anxiety.

2.8.3.8 Goodman Strengths and Difficulties Questionnaire (SDQ)

The Goodman Strengths and Difficulties Questionnaire claims to be sensitive to treatment changes. It was administered to the participant, the parent and to a teacher at school, identified by the participant as knowing them well, to provide a comparison of their perceptions. The SDQ was retained for the main study as it appeared sensitive to changes in both the participants and in the parents. The teacher SDQ measure was retained for the main study as it was felt that if a replication of the pilot was achieved this could be an important finding that the teacher was less aware than the parents of the participants' feelings.

2.8.3.9 Coopersmith Behavioural and Academic Self-Esteem (BASE)

The Coopersmith and Gilberts measure of Behavioural and Academic Self-Esteem (BASE) was retained as it provided a measure of perceived change in the participant by a teacher in their school.

2.8.4 Commitment, expectancy and effort

On the pro-forma (Appendix 10) developed for identifying and recording progress of a participant's personal targets, following further reading after the start of the

pilot and on reflection of the data collected, it was decided to include on the personal targets measure, at the pre-treatment stage, the following two questions:

1. How much do you want to change the way things are?
2. How improved do you think you will be at the end of the treatment?

Question one was introduced to measure the degree of the participant's commitment to change as it was hypothesized this may have an influence on the degree of change achieved by the participant. It also has the potential to introduce a meta-cognitive moment of realization in the participant as they process the question and respond with their answer. Question two was introduced to measure the degree of expectation of success which the participant held for the particular anxiety management technique they were about to receive training in, as it was hypothesized that their expectation may also have an effect on treatment outcome.

At session 2 and beyond it was decided to include the following questions for participants to rate on a zero to ten scale on the pro-forma (Appendix 11):

1. How improved do you think you are now at this session?
2. How much effort are you putting into using the treatment?

Question one is the penultimate question to be asked after completion of the last personal target item. Participants will be asked to assume that they started from being at zero at the first session. Question two will then follow to raise the participant's awareness of the potential relationship between their effort and their improvement. Apart from creating the opportunity for the participant to reflect on this there will intentionally be no discussion introduced or observation made of this potential relationship.

It was considered at the end of session one, when giving out instructions, to tell the participant that they will be asked the above two questions at each future session. However, this was eventually decided against, as with some participants it could possibly make them feel guilty and or pressured to the extent that they may even consider being economical with the truth in their replies if, for whatever reason, they had completed little or no practice. To this end participants at the end of each session, when asked to practice as near daily as possible, will also be informed that sometimes circumstances could make practice too difficult and that they would not be criticized, even if they have not managed any practice, and that ultimate decisions about practice will be under their control and decision.

2.8.5 Progressive muscular relaxation process checklist

The process checklist for participants receiving muscular relaxation was modified (Appendix 1) as a result of the pilot to include assessment of how much the participant wanted to change, also to assess their expectation of improvement. A further change in the process was made relating to "guidelines for muscular relaxation training" (Appendix 2) which were read out to participants at session 1. Following the pilot it was decided to give participants a copy to take away for future reference.

2.8.6 Hypnosis process checklist

The process checklist for hypnosis participants was also modified (Appendix 4a) following the pilot to include assessment of how much the participant wanted to change and also to assess their expectation of improvement. The procedure of

providing audio tapes of the first two sessions worked effectively and was retained for the main study.

2.9 Summary

The pilot proved to be very beneficial in the confidence gained by the writer following successful administration of the measures, learning how long they took to administer and informing the slight reorganization made to allow for completion of the measures within a reasonable time at the first session. It was also helpful to gain experience in delivering the muscular relaxation and the hypnosis techniques and to see from the results that both approaches were of benefit to participants, in enabling them to improve management of their anxiety. The pilot also enabled modifications to be made to proforma to facilitate consistency of delivery to participants. Most importantly, conducting the pilot stimulated further thinking and consequently useful additions to the measures including commitment, expectancy, improvement and effort.

CHAPTER 3: METHOD

3.1 Introduction

This research study took place within a fifteen month period. Subsequent to completing the pilot study, adjustments, referred to in Chapter two in the section on implications for the main study, were made in the methodology of the main study. These findings from the pilot study in informing the main study were also incorporated with findings from the literature review.

3.2 Rationale for main study

Anxiety can lead to tension, stress, avoidance behaviour and inhibit performance and school attendance. As it is not possible to be relaxed and tense simultaneously teaching students with anxiety related difficulties how to relax and to learn and apply techniques of relaxation, should mean they cannot also be anxious at the same time. When students realise they can learn to control anxiety, which has been controlling them and which can often produce a varied range of unwanted and life debilitating behaviours and emotions, they can become empowered and their performance and life improved.

3.3 Methodology

3.3.1 Design

The purpose of the research was to analyse and compare two techniques for helping students to improve management and control of their anxiety. The effect of applying

hypnosis / self-hypnosis was compared with the effect of applying progressive muscular relaxation to the management of anxiety of participating secondary school students. Several research aims developed from this including:

1. One which developed from the literature review; this was to examine if either treatment additionally affected feelings of hopelessness, self-esteem, personal targets, locus of control and strengths and difficulties. A pre and post-test design was used to examine the effect of each treatment on the participants.
2. A second aim involved comparing responses from participants and parents for observed changes in the effect on life at home.
3. A third aim compared strengths and difficulties data collected from each participant with data from their parent and also their teacher.
4. A fourth aim was to examine any changes occurring in the teachers' observations of the participants during the period of the intervention, in behavioural and academic self-esteem, and to explore to what extent these observations reflect the change which participants themselves record.
5. A fifth aim was to examine whether participants' commitment to change had any relationship with outcome.
6. Aim six was to explore if participants' expectations had any relationship with outcome.
7. Aim seven examined whether there was any relationship between effort in applying the technique and outcome.

8. Follow up meetings at one three and six months formed the eighth aim as to whether changes achieved whilst using the treatment approach were maintained over time. These meetings were conducted to examine whether changes achieved by participants whilst applying either technique were maintained over time. Data was analysed using analysis of variance and correlation.

PROGRESSIVE MUSCULAR RELAXATION GROUP			
	Referred for	**Referred by**	**School attendance**
1	Anxiety, panic, sleep problems.	Counsellor	Regular
2	Anxiety, depression, panic, worry.	Counsellor	Absences
3	Panic attacks, fear from bullying.	Counsellor	Absences
4	Sleeping in school uniform, spider phobia, checking.	Psychiatrist	Missing lessons at start of each day
5	Exam anxiety, nervous working with others, panic attacks.	GP	Missing some lessons
6	Self-harm, school refusal, panic.	School E.P.	Absent for a term.
7	Post traumatic stress from burglary at home (age 7) worry and phobias.	GP	Regular
8	Exam anxiety, sleep problems.	Counsellor	Regular
9	Anxiety, depression, self-harm.	Counsellor	Absences plus missing lessons
10	Anxiety, lack of confidence.	School E.P.	Several exclusions

Table 3.1 To show referral reasons, school attendance and referral source.

3.3.2 Participants

Twenty secondary school students referred for anxiety related difficulties were randomly allocated to one of two treatment groups; either to a group receiving hypnosis / self-hypnosis or to a group receiving progressive muscular relaxation. In addition to

SELF – HYPNOSIS GROUP			
	Referred for	**Referred by**	**School attendance**
1	Schoolwork worries, concentration.	School	Regular
2	Anxiety, worry, sleep problems.	GP	School refusal
3	Exam anxiety, hyperventilation	Counsellor	Regular
4	Anxiety, negative body image	Counsellor	Absent 6 months
5	Separation anxiety, nightmares	Psychiatrist	Absences
6	Anxiety, perfectionism, image.	GP	Regular
7	Exam anxiety, detached, sleep.	Psychiatrist	Leaving lessons
8	Night eneuresis, cannot settle.	Paediatrician	Exclusions
9	Hyperventilation, panic.	Psychiatrist	Not attending
10	Fear of aids and cancer, anxiety.	Psychiatrist	Regular

Table 3.2 **To show referral reasons, school attendance and referral source.**

being matched for numbers, each of the two groups was matched for number of sessions and for time spent by the therapist with each participant and for the number of follow up visits.

SELF-HYPNOSIS GROUP			
	Single Parent	Learning Difficulties	On medication
1	YES	NO	NO
2	YES	YES	YES
3	NO	NO	NO
4	YES	YES	NO
5	NO	NO	YES
6	NO	NO	NO
7	YES	NO	YES
8	NO	NO	NO
9	YES	NO	NO
10	NO	NO	YES

Table 3.3 To show numbers of participants with learning difficulties, family circumstances and those on medication.

Each student was always seen individually and accompanied by a parent. The students were in secondary school and ranged from year 7 to year 11. The hypnosis group consisted of 4 boys and 6 girls; 2 in year 7, 2 in year 8, 1 in year 10 and 5 in year 11. The progressive muscular relaxation group included 3 boys and 7 girls; 1 in year 9, 2 in year 10 and 7 in year 11.

PROGRESSIVE MUSCULAR RELAXATION GROUP			
	Single Parent	Learning Difficulties	On medication
1	NO	NO	YES
2	YES	NO	YES
3	NO	NO	NO
4	YES	NO	YES
5	YES	NO	YES
6	NO	NO	NO
7	NO	YES	NO
8	YES	NO	YES
9	NO	YES	NO
10	NO	NO	NO

Table 3.4 **To show numbers of participants with learning difficulties, family circumstances and those on medication.**

The 20 participants in the study were all referred for anxiety related conditions (Tables 3.1 & 3.2). Referrers included school Educational Psychologists, Counselors, GPs, Psychiatrists and a Head Teacher (Tables 3.1 & 3.2). Whilst all participants were white Caucasian they varied on a range of life circumstances and experiences. Five came from single parent families in the SH group and four in the PMR group (Tables 3.3 & 3.4).

Four of the SH group were on prescribed medication compared to five of the PMR group (Tables 3.3 & 3.4). Learning difficulties were experienced by two participants in each of the intervention groups (Tables 3.3 & 3.4). Only four of the SH group and three of the PMR were regularly attending school and lessons (Tables 3.1 & 3.2). Further insights and details of participants are provided in the case studies in section 3.4 and Appendix 23.

Age variation within groups of young participants could be an influential variable and Table 3.5 illustrates the variation of standard deviation for age between the two groups. As young people change radically with age as they grow to adulthood the age of participants in the research is an important consideration becoming more significant the greater the age range.

	Self-hypnosis	Progressive muscular Relaxation
N	10	10
Group age in months	1757	1824
Mean	175.7	182.4
Standard Deviation	20.69	8.36
Range	137 to 199 months	165 to 193 months

Table 3.5 To show comparison of each treatment group for age.

All of the participants in this study were of secondary school age. An example of age related issues is research which shows that hypnotizability in young children is quite limited but that it increases in 7 to 14 age group then shows some decrease in

later adolescence with children as a group being more susceptible than adults (London, 1962). It was noted by Bowers and Lebaron (1986) that most 7 year olds have the cognitive ability to experience most of the elements of hypnosis recorded by adults.

To test statistically whether the two randomly allocated treatment groups differ on age a Mann Whitney test was applied. This showed there was no statistically significant difference in age between the two groups (U = 49.500).

3.3.3 Procedures

A process checklist was developed for the hypnosis group (Appendix 1) and for the progressive muscular relaxation group (Appendix 4). These checklists helped in a number of ways including the control of such variables as contact time with the therapist, the content of each session and for consistency in delivery of the technique to the participant. The checklist also aided the therapist in following a similar sequence in the process for each participant and to avoid any aspect of the process being omitted by chance. Both groups were provided with audio tapes at the end of sessions 1 and 2 to aid their rehearsal and practice of the technique at home. All participants received four sessions with pre measures being taken at session one and post measures at session four.

All participants were asked to identify a teacher at their school whom they were happy to be contacted to complete two questionnaires about them. Teachers were initially contacted by telephone with an explanation of why they were being

contacted then the questionnaires were faxed to them for completion and returned by the same method. All contacted teachers indicated willingness to respond.

The main study also included follow-up measures at one, three and six months, to check for maintenance of changes achieved by the participants between the pre and post measure phase. Follow up visits were not included in the pilot as it would have extended the time taken to conduct the pilot phase by several months.

Schedule of Sessions			
Session Number	Measures	Treatment (Hypnosis or Progressive muscular relaxation)	Audio tape to take away and practice ?
1	PRE	First treatment session	Yes
2		Second treatment session	Yes
3		Third treatment session	Self-practice
4	POST		

Figure 3.1 **To show schedule of sessions for the instruction of participants.**

3.3.4 Ethical issues

Protection of participants in research studies includes protection of confidentiality. The avoidance of harm and the receipt of informed consent are accepted principles (Miles & Huberman, 1994). Identities of participants in this study are protected by the allocation of a code consisting of a letter and a number e.g. H1. Parental

permission was sought, for all the participants, for data from their casework to be used anonymously in the research study. Permission was also obtained from each participant, for a teacher in their school to be approached to complete two questionnaires about them. All participants appeared happy to name a teacher who could be approached for this purpose. It is not possible to identify either, participants, parents, teachers or schools from the data referred to in this study (British Psychological Society, 2000).

3.3.5 Measures

The following measures were used at pre and post intervention and also at one, three and six month follow up visits, apart from the teacher completed measures which were taken at pre and post intervention only and personal targets which were completed at every meeting. Information on each measure is provided in Chapter 2.

- Beck Anxiety Inventory
- Beck Anxiety Inventory-Youth
- Beck Hopelessness Scale
- Butler Self-image Profile
- Goodman Strengths and Difficulties Questionnaire
- Locus of Control
- Byron Personal Targets Scale
- Byron Effect on Home Life
- Commitment
- Expectancy
- Improvement
- Effort

3.4 Case Studies (for further case studies see Appendix 23)

3.4.1 Hypnosis Case study 1 – (D)

D, a boy in Year 11, was referred by a social worker in Child and Family Guidance with regard to his obsession of four years that he was going to die of aids or cancer. It began when his mother became depressed and left home for a while. The impact on D was considerable and since then every ache or pain or lump was thought by him to be cancer. His father had now developed depression. A friend of D's eighteen months earlier lost a leg due to cancer. D could not be reassured. D's mother described him as "suffering for many years with a fear of illness and dying which at times has taken over D's life and indeed ours as a family. He has had an enormous fear of doctors, thinking that any time he may visit he was going to be sent to hospital and that was where he would die." D was described as very sociable, liking music and singing, good at sports and had a girl friend.

The Clinical Medical Officer describing D said, "he has always been anxious, finding it difficult to shower because when he touches his body he imagines he can feel potentially cancerous lumps. It is hard to persuade him to see a doctor and he actively avoids health information. The anxiety is making his life very uncomfortable". Neuro Linguistic Programming had been tried without any noticeable effect. D's mother described him as never relaxing unless he is asleep.

The hypnotherapy programme delivered had seen a pre measure of anxiety on the BAI at 29 reduce to 28 at the post measure and to 1 at the one month follow up. At his third visit for hypnotherapy, during a session which included age progression

(Appendix 13), D was able to select a time in the future three months ahead, November, as the month when he felt he would have attained the level he wanted on all of the personal targets for change, which he had listed at the outset. D was even able to describe evidence to support this, seeing himself at school enjoying PE, then having a laugh outside school and feeling happy, lastly seeing himself at seven o'clock on a sunny evening at 'footy' training being able to get on with things and feeling happy and relaxed.

Comments from his mother recorded at the 6 month follow up had included, "It has helped him so much, he is aware it is not bothering him. When he first came to see you never a day went by without him asking if he was going to die, now he never asks. Right from the first visit to see you he began to change. Recently he had an ear pierced without worrying about Aids, he would never have done that before even though he wanted to." On a scale of 1 to 10 the effect of D's difficulties on home life for everyone was recorded by D to have improved from a pre measure of 2 to 10 at the six month follow up and by his mother to have improved from a 4 to a 9.

D himself however did not think anything had changed and that the reason for the anxiety scores reducing to zero was simply because he had not found any lumps recently. This illustrates how useful it can be to have a parent's perception available as well as the student's. At the outset D was very much a one word person and even that had been very difficult to elicit from him but by the final appointment, at the 6 month follow up, he was much more relaxed, giving more eye contact and volunteering information. It was noticeable that he now hardly ever looked at his

mother for reassurance when responding to my questions in contrast to the way he had done in the beginning.

3.4.2 Muscular Relaxation Case Study 1 - (M)

M, who had been referred by the school educational psychologist, lived with her mother and elder sister. Three years previously M had suffered from palsy causing the muscles in her face to drop and leaving her with a squint and the remains of a twitch. M had subsequently been bullied at school about her looks with one boy actually threatening to and almost setting fire to her hair. M was called 'spastic face' by two boys who were in many of her lessons and she had begun to panic when in groups of people. M continuously called herself ugly and wore make up and styled her hair to hide the effects of the palsy and had begun self-harming by cutting. M, who had been described by her mother as having lots of anger in her and resorting at times to punching her mother, had been unable to go into school.

When I first met M, in early February, she had given little eye contact, her answers had been brief and she had looked pale and tired. M had confirmed that when she was with a group of people her age "I feel they are talking about me." M had not been getting out of the house and had seen herself as shaky and nervous and as being unable to relax.

The muscular relaxation programme had seen a pre-measure on the BAI of 36 reduce to 33 at the post measure and to 26 at the one month follow up. At the three month follow up this had risen to 35 and at six month follow up reduced to 28. I had made several home visits to see M at which I had never seen her because she would

not come down from her bedroom. However I had been able to use her mother to collect and pass information to her. M had reached a stage at the three month follow up when she had begun to feel more positive and to contemplate the possibility of part time school attendance after the summer break.

After the summer break M had returned to school for the first couple of days of term but then that weekend had received phone calls (some at two o'clock in the morning) from eleven girls which had included some very nasty threats saying they were going to get her. This had ended M's attendance at school and had been followed by loss of confidence, further self-harming from cutting and refusal to leave the house. M's mother had said that previously whereas M had been confident enough to go out without make-up on that now it was back to how it had been before and that M now hated everyone. Perception of how much, with ten being the best it could be, the original difficulties were affecting life at home now for everyone had got worse, going from a pre measure of 4 to 3 for C at the six months follow up visit and similarly from 4 to 3 from the perception of C's mother.

At the six month follow up M had been described by her mother as frequently refusing to get up asking "what is the point?" By then M no longer answered any phone calls. However M had started a one day a week hairdressing course at a college some distance away which she was enjoying but which she could only manage if her mother drove her to the college. Contact with school appeared to have completely broken down.

CHAPTER 4: RESULTS

4.1 Introduction

This is a small scale study with two groups of ten participants. Participants were treated using either a self-hypnosis or a progressive muscular relaxation treatment method.

MEASURES	Pre	Session 2	Session 3	Post	1 month	3 months	6 months
BAI	*	–	–	*	*	*	*
BAI-Y	*	–	–	*	*	*	*
Hopelessness	*	–	–	*	*	*	*
SIP	*	–	–	*	*	*	*
SDQ-Self	*	–	–	*	*	*	*
SDQ-Parent	*	–	–	*	*	*	*
SDQ-Teacher	*	–	–	*	–	–	–
BASE-Teacher	*	–	–	*	–	–	–
Personal Targets	*	*	*	*	*	*	*
Home Life- Self	*	–	–	*	*	*	*
Home Life - Parent	*	–	–	*	*	*	*
Locus of contrd	*	–	–	*	*	*	*
Improvement	–	*	*	*	*	*	*
Effort	–	*	*	*	*	*	*
Commitment	*	–	–	–	–	–	–
Expectancy	*	–	–	–	–	–	–

Key: * indicates when a measure was taken.

Table 4.1 To show time points when measures were taken.

Measures of anxiety (BAI & BAI-Y), locus of control, hopelessness, perception of home situation (self rated & parent rated), strengths and difficulties (self rated, parent rated and teacher rated), self esteem (measured through the Butler Self-Image Profile) and personal targets were analysed (see table 4.1).

These measures were taken pre treatment, post treatment, at 1 month follow up, 3 month follow up and 6 month follow up (some data were missing for the 3 month and 6 month follow ups and so they were not used in the following analyses). For 'personal targets' measures were also taken at sessions two and three. Measures from school were taken at pre treatment and post treatment only using the SDQ and the Behavioural and Academic Self-Esteem (BASE) questionnaire (see Table 4.1).

Measures of commitment to improve and also expectancy to improve were taken pre-treatment only, and measures of self-rated improvement and effort put into the treatment were measured at sessions 2, 3, 4, 1 month follow up, 3 month follow up and 6 month follow up [data for two participants were missing for the 3 month and 6 month follow ups and so they were not used in the following analyses] (see Table 4.1).

Each measure was analysed separately. The following six research questions were addressed in relation to each measure.

1. Does the rating improve over the period of the treatment?
2. Does the rating improve over the period of the treatment more for the self-hypnosis group than for the muscular relaxation group?
3. Is high commitment to improve associated with greater change in the measures over time?
4. Is high expectancy to improve associated with greater change in the measures over time?"

5. Are achieved changes in anxiety reduction maintained over time?
6. Are achieved changes on the other measures employed maintained over time?

4.2 Results for each measure.

This section includes graphs for each measure and examines research questions one and two. The graphs enable comparison of changes achieved by participants during the intervention phase of the first three weeks (up to the post measure [second point on the graph], during which time the participant is being instructed in the treatment method) and after the intervention phase (after the post measure) when the participants deliver the treatment to themselves independently.

For each of the measures when considering an analysis of variance (ANOVA), unless otherwise specified, checks using Levine's test for homogeneity of variance and the test for equality of covariance matrices were not significant, suggesting no problems with the homogeneity of variance or compound symmetry assumptions. Also for each measure where ANOVA was employed, when considering difference across the three time points (for both methods combined) a bonferroni correction was applied to these significance values.

Similarly for each of the measures, when considering preliminary checks, unless otherwise specified, the distributions for the self-hypnosis group and for the muscular relaxation group did not violate skewness or kurtosis constraints.

4.2.1 Beck Anxiety Inventory (BAI).

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. In the direction of anxiety reducing further for the self-hypnosis group than the muscular relaxation group, at both post treatment and at first follow up, the interaction between time point and method approached significance.
2. There was a significant difference in anxiety level across the three time points (for both methods).
3. During the final five months of follow up the self-hypnosis group showed an apparent trend to continue to reduce anxiety very slightly whereas the muscular relaxation group regressed at three months and then recouped its anxiety reduction by the six month follow up.
4. There was an apparent trend for anxiety to reduce more in the self-hypnosis group and this was evident at every time point (see figure 4.1).

A measure of the anxiety of each participant receiving hypnosis or muscular relaxation treatment was taken using the Beck Anxiety Inventory.

In the distribution for the self-hypnosis group kurtosis was constrained a little (more than three) on the second and third time points. There were, however, equal

numbers within each treatment group, alleviating this problem to some extent. Box plots highlighted 3 outliers and 2 extreme cases within the self-hypnosis group and none in the muscular relaxation group. However, removal of these would make the numbers in each group unequal and the numbers were already small. So they were not removed. Figure 4.1 shows pre to first follow up anxiety measures reducing from 23.7 to 6.9 (a reduction of 16.8) for the hypnosis group compared with 20.9 to 13.1 (a reduction of 7.8) for the muscular relaxation group. Both groups show a reduction in anxiety with a greater reduction (by 9.0) being indicated for the hypnosis group. There was a significant difference in anxiety level across the three time points (for both methods), $F(2,36) = 21.142$, $p<.001$.

From one month follow up to six month follow up both treatment groups continue to reduce on the BAI measure with muscular relaxation group reducing a further 0.85 to 12.25 and the hypnosis group reducing a further 1.2 to 5.7. This leaves the hypnosis group with a final anxiety measure 6.55 lower than the muscular relaxation group.

Analysis of Variance (ANOVA).

A mixed measures analysis of variance containing one within group measure (anxiety at three time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

The interaction between time point and method approached significance, $F(2, 36) = 2.849$, $p = .071$. This was in the direction of anxiety reducing further for the self-

hypnosis group than the muscular relaxation group at both post treatment and at first follow up.

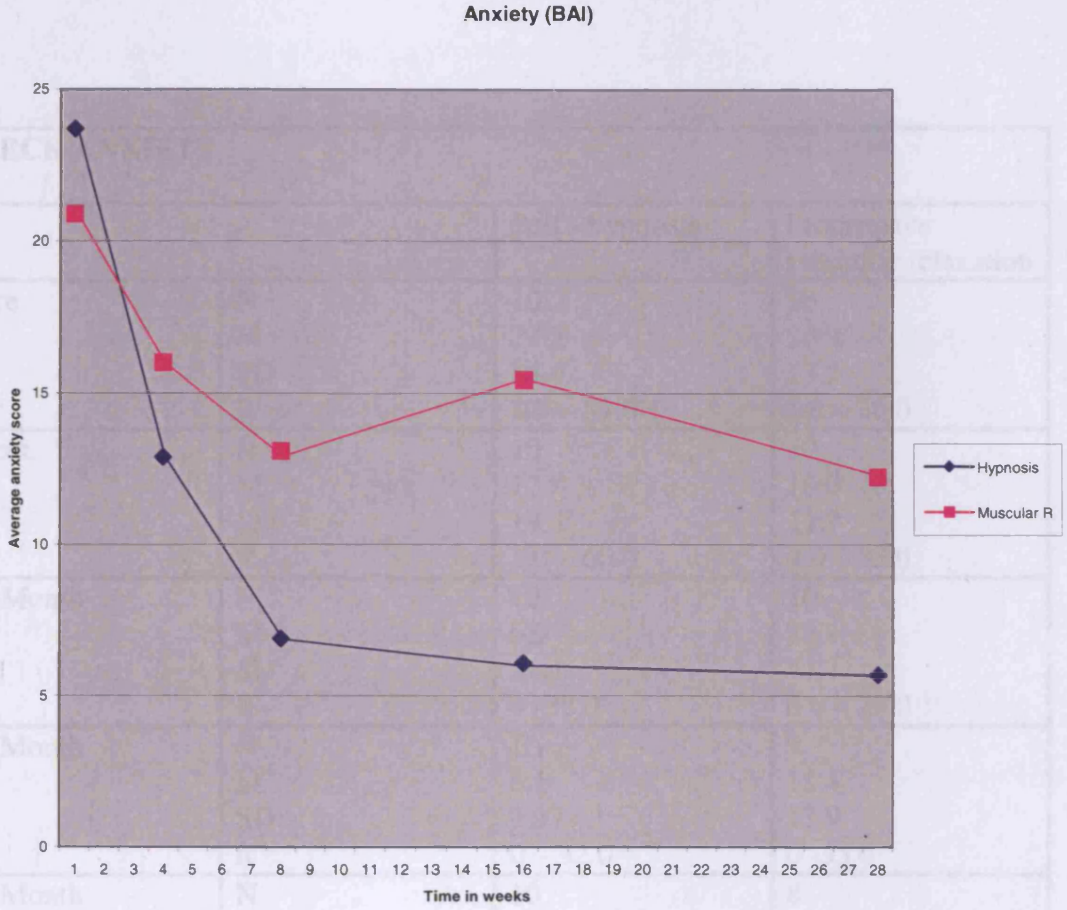

Figure 4.1 **To show changes in "Anxiety (BAI)" over the period of intervention and follow up.**

There was a significant difference in anxiety level across the three time points (for both methods combined), F (2, 36) = 21.142, $p<.001$. A series of post-hoc t-tests revealed that anxiety was lower at post treatment than at pre treatment, t (19)= 3.753, $p<.01$, and that anxiety was lower at first follow up than at pre treatment, t (19) = 5.673, $p<.001$.

Anxiety was not significantly lower at first follow up than at post treatment, t (19) = 2.568, $p>.05$.

BECK ANXIETY			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 23.7 15.6 2.0 – 57.0	10 20.9 13.5 1.0 – 36.0
Post	N M SD R	10 12.9 18.3 1.0 – 60.0	10 16.0 11.7 4.0 – 33.0
1 Month	N M SD R	10 6.9 11.7 0 -38.0	10 13.1 11.1 3.0 – 29.0
3 Month	N M SD R	10 6.1 9.97 0 – 32.0	9 15.4 12.9 0 -35.0
6 Month	N M SD R	10 5.7 9.7 0 -32.0	8 12.25 12.2 0 - 28

Table 4.2 Beck Anxiety.

To show population, mean, standard deviation and range for each time point.

There was no significant difference in the anxiety reported by the self-hypnosis and the muscular relaxation groups (for all time points), F (1, 18) = 0.139, $p>.05$.

4.2.2 Beck Anxiety Inventory – Youth (BAI-Y)

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. Anxiety reduced for both groups.
2. There was an apparent trend (figure 4.2), though non significant, for anxiety to reduce in the direction of the self-hypnosis group.
3. There was a significant difference in youth anxiety level across the three time points (for both methods).
4. The follow up over the final five months (figure 4.2) shows an apparent trend for anxiety continuing to reduce at each time point for the self-hypnosis group whereas for the muscular relaxation group a plateau effect is evident over the final five months.

A measure of the anxiety of each participant receiving hypnosis or muscular relaxation treatment was also taken using the Beck Anxiety Inventory – Youth.

There were equal numbers within each treatment group. Box plots highlighted 2 outliers within the self-hypnosis group and one in the muscular relaxation group. However, removal of these would make the numbers in each group unequal and they were already small. So they were not removed.

Figure 4.2 shows pre to first follow up anxiety measures reducing from 20.7 to 8.9 (a reduction of 11.8) for the hypnosis group compared with 23.7 to 14.9 (a reduction

of 8.8) for the muscular relaxation group. Both groups show a reduction in anxiety. A greater reduction (by 3.1) is indicated for the hypnosis group. There was a significant difference in youth anxiety level across the three time points (for both methods), F (2,36) = 25.964, $p<.001$.

From one month follow up to six month follow up on the youth anxiety measure the muscular relaxation group reduced by a further 0.15 to 14.75 compared with a further

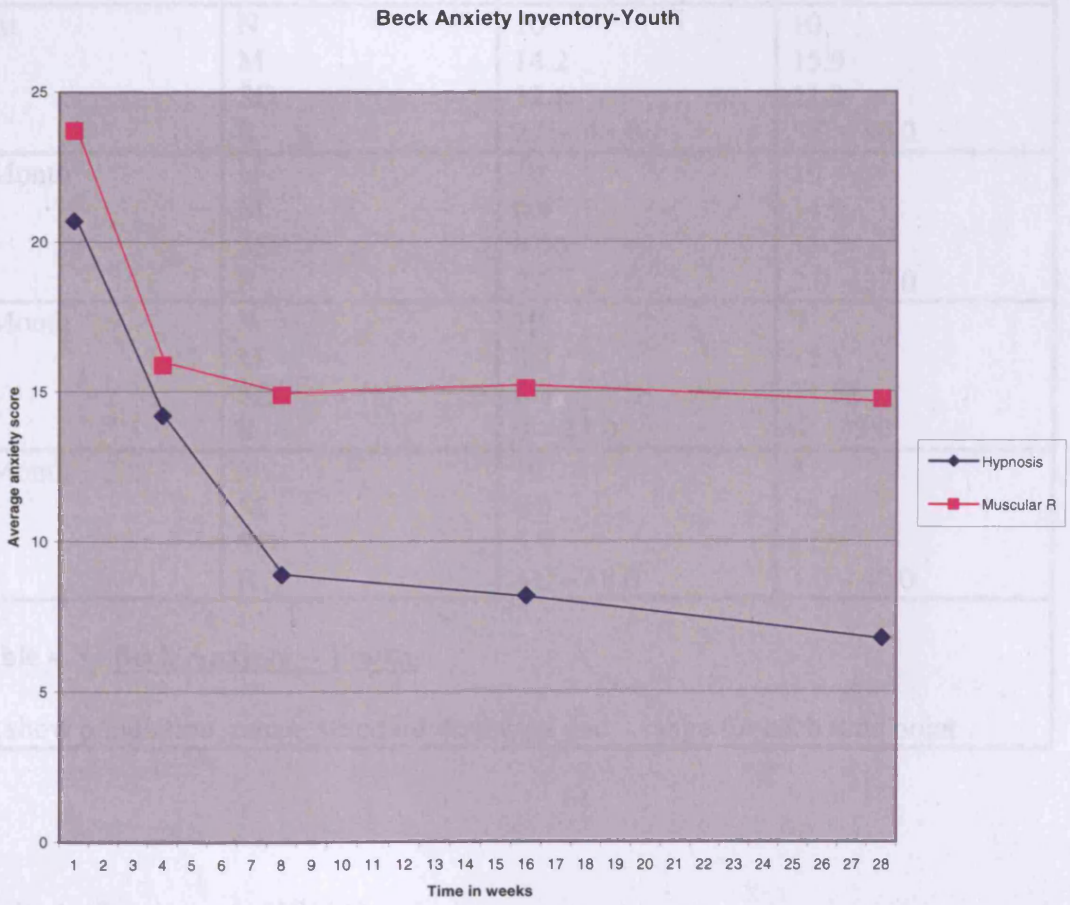

Figure 4.2 **To show changes in "Anxiety (BAI-Y)" over the period of intervention and follow up.**

reduction of 2.1 to 6.8 for the hypnosis group. This final measure finds the hypnosis group, at 6.8, some 7.95 points lower on anxiety than the muscular relaxation group at 14.75.

BECK ANXIETY - YOUTH			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 20.7 11.4 2.0 – 42.0	10 23.7 10.7 11.0 – 43.0
Post	N M SD R	10 14.2 12.6 2.0 – 43.0	10 15.9 11.2 5.0 – 40.0
1 Month	N M SD R	10 8.9 8.96 2.0 – 28.0	10 14.9 11.5 2.0 – 37.0
3 Month	N M SD R	10 8.2 8.8 0 – 23.0	9 15.1 11.58 0 – 33.0
6 Month	N M SD R	10 6.8 5.9 1.0 – 18.0	8 14.8 12.9 1.0 – 40.0

Table 4.3 Beck Anxiety – Youth.

To show population, mean, standard deviation and range for each time point.

Analysis of variance (ANOVA)

A mixed measures analysis of variance containing one within group measure (anxiety youth at three time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

The interaction between youth anxiety across the time points and treatment method was not significant, F (2,36) = 1.133, $p>.05$.

There was a significant difference in youth anxiety level across the three time points (for both methods), F (2,36) = 25.964, $p<.001$. A series of post-hoc t-tests revealed that youth anxiety was lower at post treatment than at pre- treatment, t (19) = 4.380, $p<.001$, lower at first follow up than at pre treatment, t (19) = 6.670, $p<.001$, and lower at first follow up than at post treatment, t (19) = 2.631, $p<.05$.

There was no significant difference in the youth anxiety reported by the self-hypnosis and the muscular relaxation groups (for all time points), F (1,18) = .582, $p>.05$.

4.2.3 Beck Hopelessness Scale (BHS).

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. Hopelessness reduced for both groups. There was a significant difference in hopelessness across the three time points (for both methods).
2. From one month follow up to six month follow up the hopelessness measure remained the same for the muscular

relaxation group whilst for the hypnosis group there was a slight apparent trend for reduction of hopelessness to continue (figure 4.3), this was non significant.

A considerable difference in the pre scores for each group was noted with the muscular relaxation group having a higher pre score.

A measure of hopelessness of each participant receiving hypnosis or muscular relaxation treatment was taken using the Beck Hopelessness Scale.

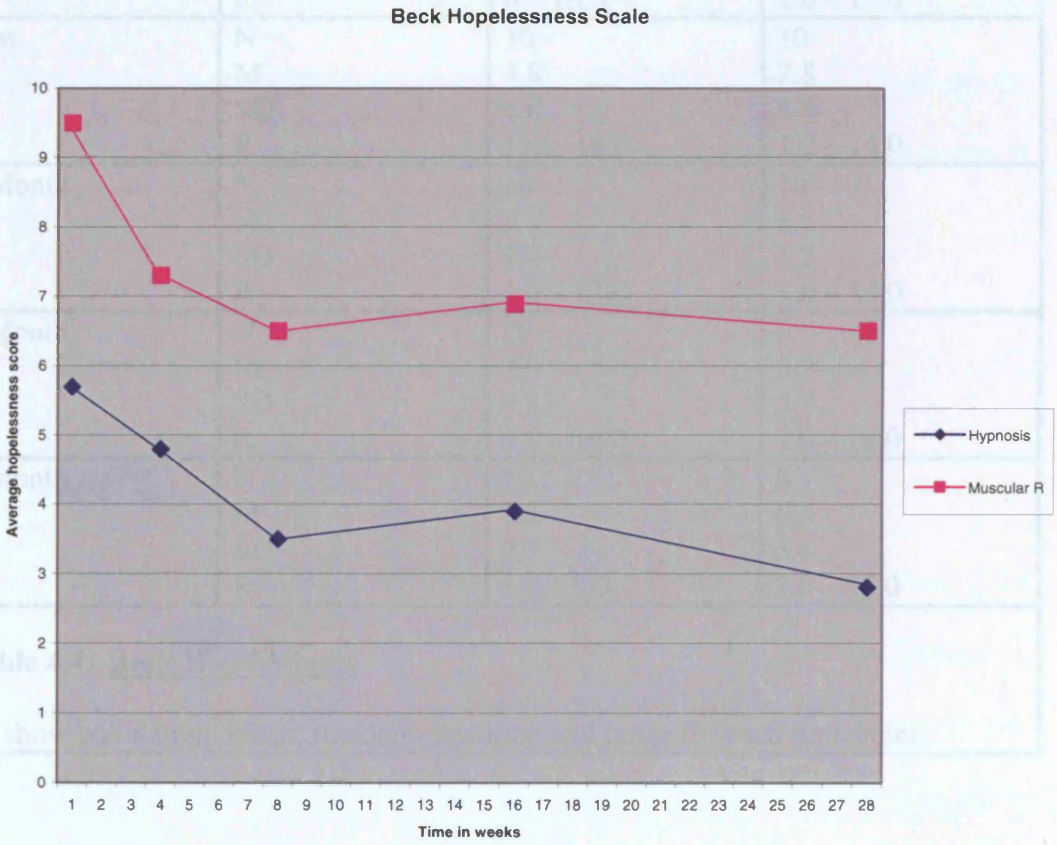

Figure 4.3 **To show changes in hopelessness over the period of intervention and follow up.**

There were equal numbers within each treatment group. Plots highlighted 2 outliers within the self-hypnosis group and none in the muscular relaxation group. However, these were not removed as the N was already small and this would have made the N for each group unequal.

BECK HOPELESSNESS			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 5.7 5.6 0 – 16.0	10 9.5 4.9 2.0 – 15.0
Post	N M SD R	10 4.8 6.0 1.0 – 18.0	10 7.3 4.9 1.0 – 14.0
1 Month	N M SD R	10 3.5 4.4 1.0 – 12.0	10 6.5 5.3 1.0 – 14.0
3 Month	N M SD R	10 3.9 4.87 1.0 – 16.0	9 6.9 5.7 1.0 – 18.0
6 Month	N M SD R	10 2.8 2.7 1.0 – 9.0	8 6.5 5.4 1.0 – 14.0

Table 4.4 Beck Hopelessness

To show population, mean, standard deviation and range for each time point.

Figure 4.3 shows pre to first follow up hopelessness measures reducing from 5.7 to 3.5 (a reduction of 2.2) for the hypnosis group compared with 9.5 to 6.5 (a reduction of 3.0) for the muscular relaxation group. Both groups show a small reduction in

hopelessness with slightly more reduction (0.8) for the muscular relaxation group. There was a significant difference in hopelessness across the three time points (for both methods), F (2,36) = 10.445, $p<.001$.

From one month follow up to six month follow up the hopelessness measure remained at 6.5 for the muscular relaxation group but for the hypnosis group continued to reduce further from 3.5 to 2.8 ending with a hopelessness score 3.7 lower than the muscular relaxation group's of 6.5.

Analysis of variance (ANOVA)

A mixed measures analysis of variance containing one within group measure (hopelessness at 3 time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

The interaction between time point and method was not significant, F (2,36) = 0.656, $p>.05$.

There was a significant difference in hopelessness across the three time points (for both methods), F (2,36) = 10.445, $p<.001$. A series of post-hoc t-tests revealed that hopelessness was lower at first follow up than at pre treatment, t (19) = 4.501, $p<.001$. Hopelessness was not significantly lower at post treatment than at pre treatment, t (19) = 2.640, $p>.05$, or at first follow up than at post treatment, t (19) = 1.961, $p>.05$.

There was no significant difference in the hopelessness reported by the self-hypnosis and the muscular relaxation groups (for all time points), $F(1,18) = 1.926$, $p>.05$.

4.2.4 Self-Esteem (Butler Self Image Profile SIP).

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. Both groups show an increase in self-esteem (figure 4.4) though a non parametric test showed the amount of difference was not significant.
2. The self-hypnosis group appeared to show more increase in self-esteem than the muscular relaxation group but this was not significant.
3. From one month to six month follow up on this measure the muscular relaxation group regressed slightly whilst the hypnosis group show an apparent trend to continue to increase their self-esteem (figure 4.4).
4. At six months follow up the self-esteem of the self-hypnosis group was 20.53(more than one standard deviation) higher than that of the muscular relaxation group.

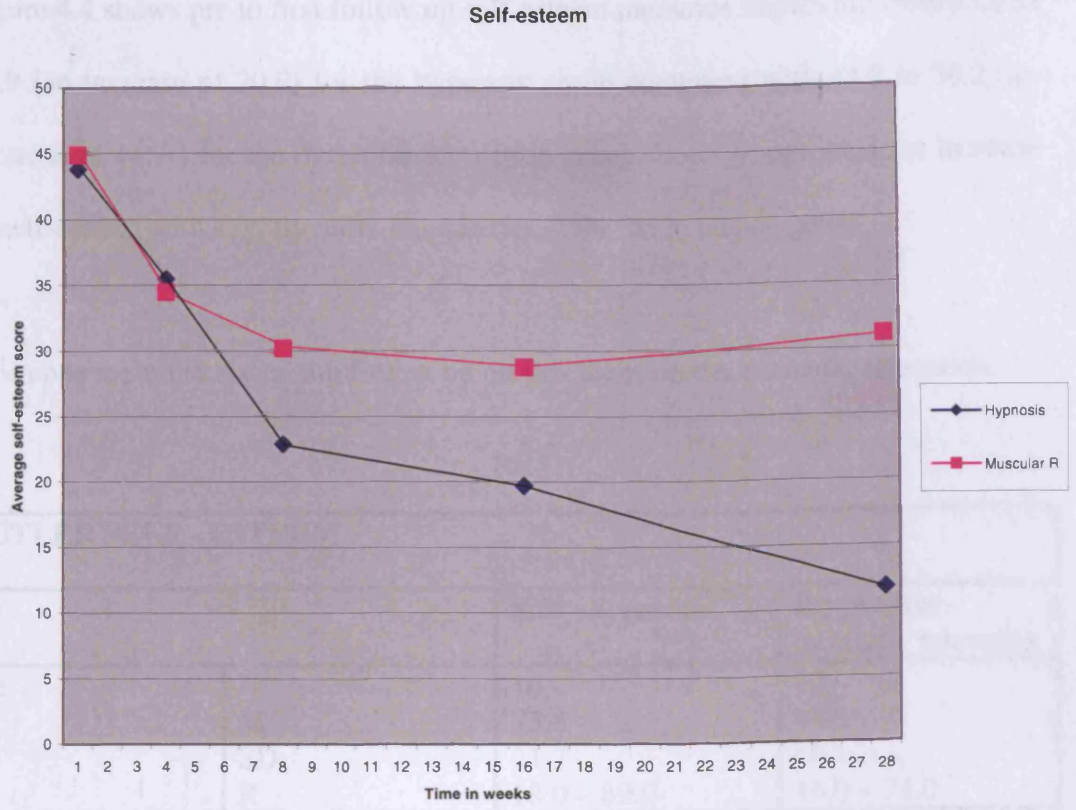

Figure 4.4 **To show changes in self-esteem over the period of intervention and follow up.**

A measure of the self-esteem of each youngster receiving hypnosis or muscular relaxation treatment was taken using the SIP.

Distributions for the muscular relaxation group violated kurtosis constraints for the final time point on kurtosis (showing just above three). Distributions for the self-hypnosis group showed one time point at just above three for kurtosis. There were 2 outliers and 1 extreme case in the self-hypnosis group and none in the muscular relaxation group. These were not removed as the Ns were already small and it would make the Ns uneven.

Figure 4.4 shows pre to first follow up self-esteem measures improving from 43.8 to 22.9 (an increase of 20.9) for the hypnosis group compared with 44.9 to 30.2 (an increase of 14.7) for the muscular relaxation group. Both groups show an increase in self-esteem with slightly more increase (6.2) for the hypnosis group.

From one month to six month follow up on this measure the muscular relaxation

BUTLER SELF - ESTEEM			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 43.8 21.2 18.0 – 89.0	10 44.9 20.1 16.0 – 74.0
Post	N M SD R	10 35.5 18.6 16.0 – 79.0	10 34.5 17.8 7.0 – 60.0
1 Month	N M SD R	10 22.9 10.1 6.0 – 46.0	10 30.2 19.1 3.0 – 54.0
3 Month	N M SD R	10 19.7 10.3 4.0 – 34.0	9 28.8 22.4 5.0 – 67.0
6 Month	N M SD R	10 11.8 5.3 3.0 – 22.0	8 31.1 33.5 3.0 – 105.0

Table 4.5 Butler Self-esteem.

To show population, mean, standard deviation and range for each time point.

group regressed slightly by 0.925 to 31.125 from 30.2 whilst the hypnosis group further improved their self esteem score by 12.3 to 10.6 from 22.9. This final

measure shows the hypnosis group with higher self-esteem than the muscular relaxation group by 20.53.

Analysis of variance (ANOVA)

Checks

The test for equality of covariance matrices was significant, suggesting a possible problem with compound symmetry. Levine's test for homogeneity of variance was significant for self esteem at 1 month follow up, suggesting a problem with the homogeneity of variance assumption.

The data were recoded, taking the square root of each self esteem score. However, the homogeneity of variance and compound symmetry problems were still present. This means that a mixed measures analysis of variance containing one within group measure (self esteem at 3 time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) could not be carried out. A non parametric test (Mann Whitney U of 38.500) also showed non significance.

4.2.5 Goodman Strengths and Difficulties Questionnaire (SDQ) self-rated.

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. There was a significant difference in self rated SDQ across the three time points (for both methods) for reduction in difficulties.
2. The self-hypnosis group show an apparent trend for greater reduction in difficulties though these are non significant.
3. Over the final five months of follow up the muscular relaxation group regress slightly whilst the self-hypnosis group show a very slight apparent trend to continue reduction in difficulties, though these are non significant.

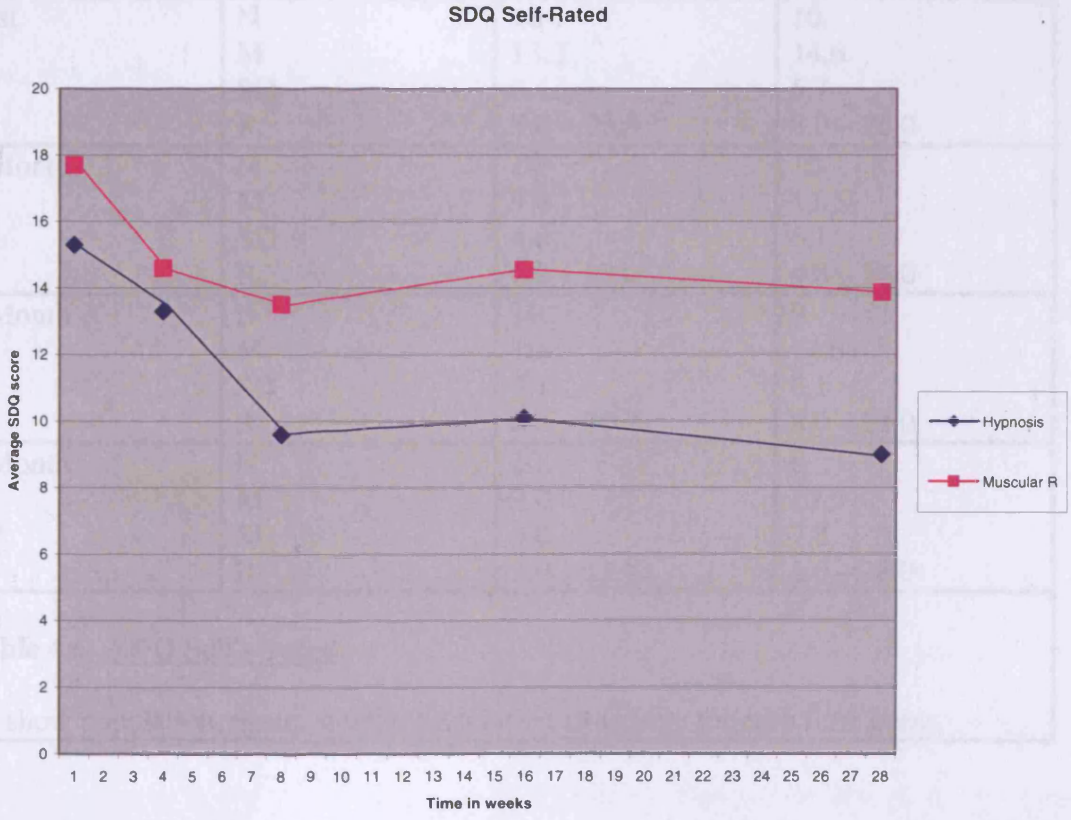

Figure 4.5 **To show changes in strengths and difficulties (self-rated) over the period of intervention and follow up.**

A measure of strengths and difficulties (SDQ) by each participant receiving hypnosis or muscular relaxation treatment was taken using the total difficulty score of 20 items. Box plots revealed 1 outlier and 3 extreme cases in the hypnosis group and none in the muscular relaxation group. However, the Ns were already small and these were not removed.

SDQ SELF-RATED			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 15,3 4.7 9.0 – 26.0	10 17.7 5.5 9.0 – 27.0
Post	N M SD R	10 13.3 6.1 3.0 – 25.0	10 14.6 5.7 8.0 – 26.0
1 Month	N M SD R	10 9.6 4.4 1.0 – 17.0	10 13.5 6.1 4.0 – 24.0
3 Month	N M SD R	10 10.1 5.1 2.0 – 20.0	9 14.6 6.1 8.0 – 23.0
6 Month	N M SD R	10 9.0 3.0 3.0 – 13.0	8 13.9 7.8 4.0 – 28.0

Table 4.6 **SDQ Self – rated.**

To show population, mean, standard deviation and range for each time point.

Figure 4.5 shows pre to first follow up SDQ self-rated measures decreasing from 15.3 to 9.6 (a decrease of 5.7) for the hypnosis group compared with 17.7 to 13.5 (a decrease of 4.2) for the muscular relaxation group. Both groups show an

improvement in SDQ measures with a slightly more improvement (by 1.5) for the hypnosis group. There was a significant difference in self rated SDQ across the three time points (for both methods), F (2,36) = 16.762, $p<.001$.

From one to six month follow up on this self rated SDQ measure the muscular relaxation group regressed slightly by 0.375 to 13.875 from 13.5 whilst the hypnosis group continued to improve slightly by 0.6 to 9.0 from 9.6. This final measure for the hypnosis group with a score which improved to 9.0 finds them 4.875 ahead of the 13.875 final score of the muscular relaxation group.

Analysis of variance (ANOVA)

A mixed measures analysis of variance containing one within group measure (self rated SDQ at 3 time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

> The interaction between self rated SDQ across the time points and method was not significant, F (2, 36) = 1.165, $p>.05$.
>
> There was a significant difference in self rated SDQ across the three time points (for both methods) F (2,36) = 16.762, $p<.001$. A series of post-hoc t-tests revealed that self rated SDQ was lower at post treatment than pre treatment, t (19) = 2.669, $p<.05$, lower at first follow up than at pre treatment, t (19) = 5.696, $p<.001$ and was lower at first follow up than a post treatment, t (19) = 3.253, $p<.05$.

There was no significant difference in the self rated SDQ reported by the self-hypnosis and the muscular relaxation groups (for all time points), $F(1, 18) = 1.299$, $p>.05$.

4.2.6 Goodman Strengths and Difficulties Questionnaire (SDQ) parent-rated.

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. There was a significant difference in parent rated SDQ for their child across the three time points (for both methods) for reduction in difficulties (figure 4.6).

A measure of strengths and difficulties (SDQ) by the parent of each participant receiving hypnosis or muscular relaxation treatment was taken.

There was one outlier in the muscular relaxation group and none in the self-hypnosis group. This was not removed as the Ns were already small and it would make the Ns uneven.

Figure 4.6 shows pre to first follow up SDQ parent-rated measures improving from 17.0 to 7.1 (an improvement of 9.9) for the hypnosis group compared with 17.4 to 11.5 (an improvement of 5.9) for the muscular relaxation group. Both groups show

an improvement in SDQ measures with a greater improvement (by 4.0) for the hypnosis group. There was a significant difference in parent rated SDQ across the three time points (for both methods), F (2, 36) = 30.565, $p<.001$.

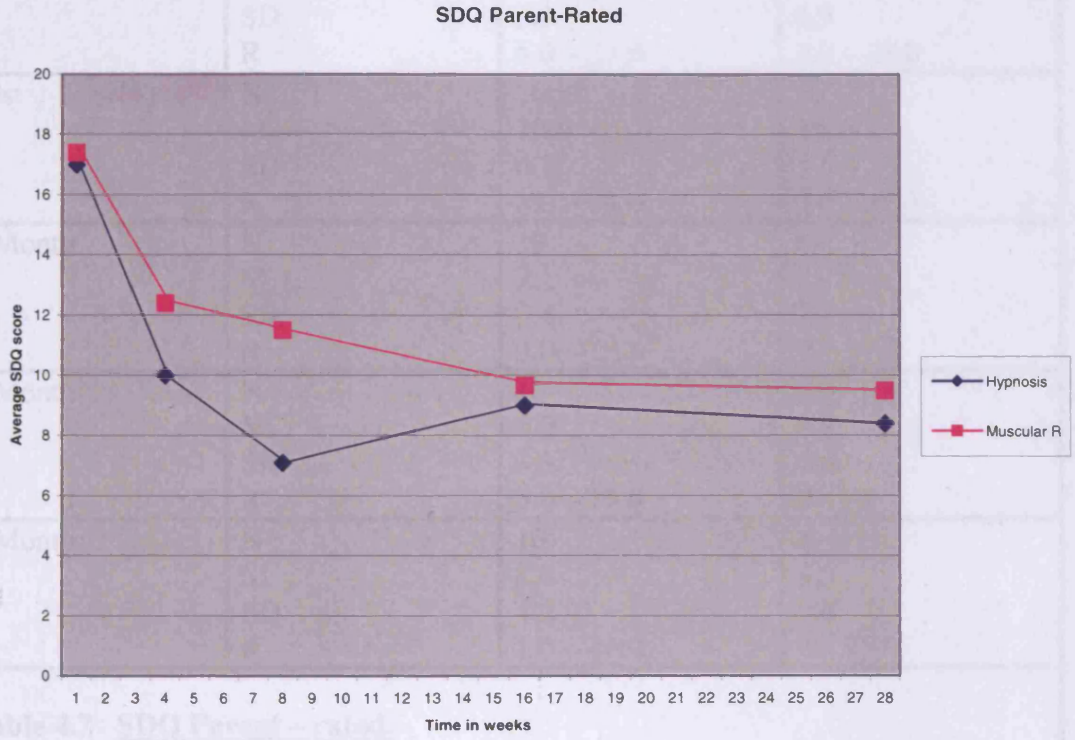

Figure 4.6 **To show changes in strengths and difficulties (parent-rated) over the period of intervention and follow up.**

From one to six month follow up the parent rated SDQ score for the muscular relaxation group continued to improve by 2.0 to 9.5 from 11.5, whereas the hypnosis group regressed by 1.3 to 8.4 from 7.1 though still leaving the hypnosis group with a more improved final measure of 8.4 compared to the muscular relaxation group at 9.5.

SDQ PARENT - RATED			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 17.0 6.3 6.0 – 27.0	10 17.4 6.9 3.0 – 28.0
Post	N M SD R	10 10.0 6.5 3.0 – 21.0	10 12.4 5.6 3.0 - 21.0
1 Month	N M SD R	10 7.1 3.4 3.0 – 14.0	10 11.5 7.5 0 – 26.0
3 Month	N M SD R	10 9.0 3.3 5.0 – 15.0	9 9.7 6.6 0 - 18
6 Month	N M SD R	10 8.4 4.2 1.0 – 16.0	8 9.5 9.0 0 – 25.0

Table 4.7 **SDQ Parent – rated.**

To show population, mean, standard deviation and range for each time point.

Analysis of variance (ANOVA)

A mixed measures analysis of variance containing one within group measure (parent rated SDQ at 3 time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

The interaction between parent rated SDQ across the time points and method was not significant, $F(2, 36) = 1.798$, $p>.05$.

There was a significant difference in parent rated SDQ across the three time points (for both methods), F (2, 36) = 30.565, $p<.001$. A series of post-hoc t-tests revealed that self rated SDQ was lower at post treatment than pre treatment, t (19) = 5.139, $p<.001$ and lower at first follow up than at pre treatment, t (19) = 7.534, $p<.001$. Self-rated SDQ was not significantly lower at first follow up than at post treatment, t (19) = 1.886, $p>.05$.

There was no significant difference in the parent rated SDQ reported by the self-hypnosis and the muscular relaxation groups (for all time points), F (1, 18) = .939, $p>.05$.

4.2.7 Goodman Strengths and Difficulties Questionnaire (SDQ) teacher-rated.

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. There was a significant difference in teacher rated SDQ across the two time points (for both methods) for reduction in difficulties.
2. Whilst not reaching significance figure 4.7 shows an apparent trend for teachers to perceive most reduction in difficulties to be for the muscular relaxation group.

Improvement in SDQ measures, with a greater improvement (by 4.375) for the A difference was noted in the pre scores for each group on the SDQ questionnaire with the muscular relaxation group having a higher pre score.

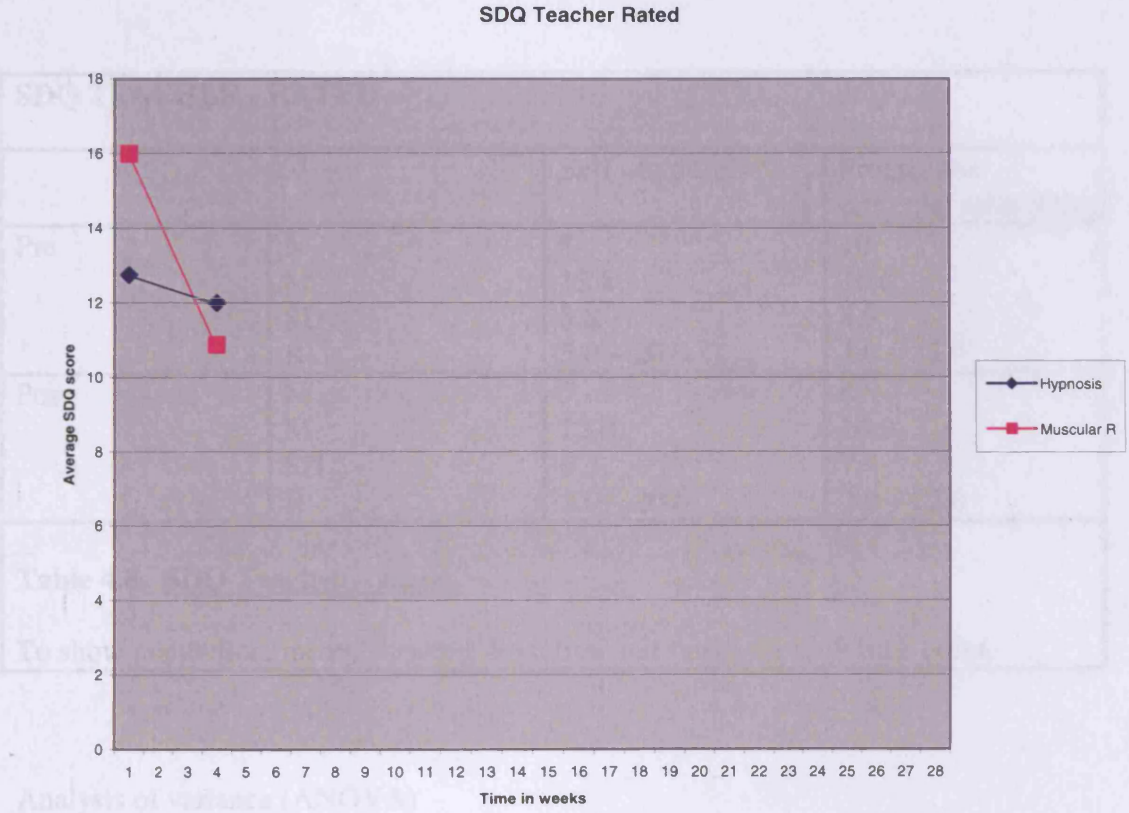

Figure 4.7 **To show teacher-rated changes in strengths and difficulties over the period of intervention.**

A measure of strengths and difficulties (SDQ) by the teacher of each youngster receiving hypnosis or muscular relaxation treatment was taken.

Figure 4.7 shows pre to post SDQ teacher-rated measures improving from 12.75 to

12.0 (an improvement of 0.75) for the hypnosis group compared with 16.0 to 10.875 (an improvement of 5.125) for the muscular relaxation group. Whilst both groups show an muscular relaxation group, the improvement perceived by the teachers to be made by the hypnosis group was negligible.

SDQ TEACHER - RATED			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	8 12.8 5.8 5.0 – 20.0	10 16.0 8.9 1.0 – 33.0
Post	N M SD R	7 12.0 6.3 2.0 – 20.0	8 10.9 7.4 2.0 – 22.0

Table 4.8 SDQ Teacher – rated.

To show population, mean, standard deviation and range for each time point.

Analysis of variance (ANOVA)

A mixed measures analysis of variance containing one within group measure (teacher rated SDQ at 2 time points: pre, post,) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

The interaction between teacher rated SDQ across the time points and method was not significant, $F(1, 13) = 0.148$, $p>.05$.

There was a significant difference in teacher rated SDQ across the two

time points (for both methods), F (1, 13) = 5.059, $p<.05$.

There was no significant difference in the teacher rated SDQ reported by the self-hypnosis and the muscular relaxation groups (for all time points), F (1, 13) = .051, $p>.05$.

4.2.8 Coopersmith Behavioural and Academic Self-Esteem (teacher-rated).

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. Whilst an ANOVA was not possible Figure 4.8 shows an apparent trend for teachers to perceive an improvement in BASE pre to post measures in both groups.
2. There was an apparent trend for teachers to see most improvement in BASE in the muscular relaxation group.

It was noted that there was a difference between the pre scores for both groups with the muscular relaxation group having a lower pre score.

A measure of behavioural and academic self-esteem by the teacher of each participant receiving hypnosis or muscular relaxation treatment was taken.

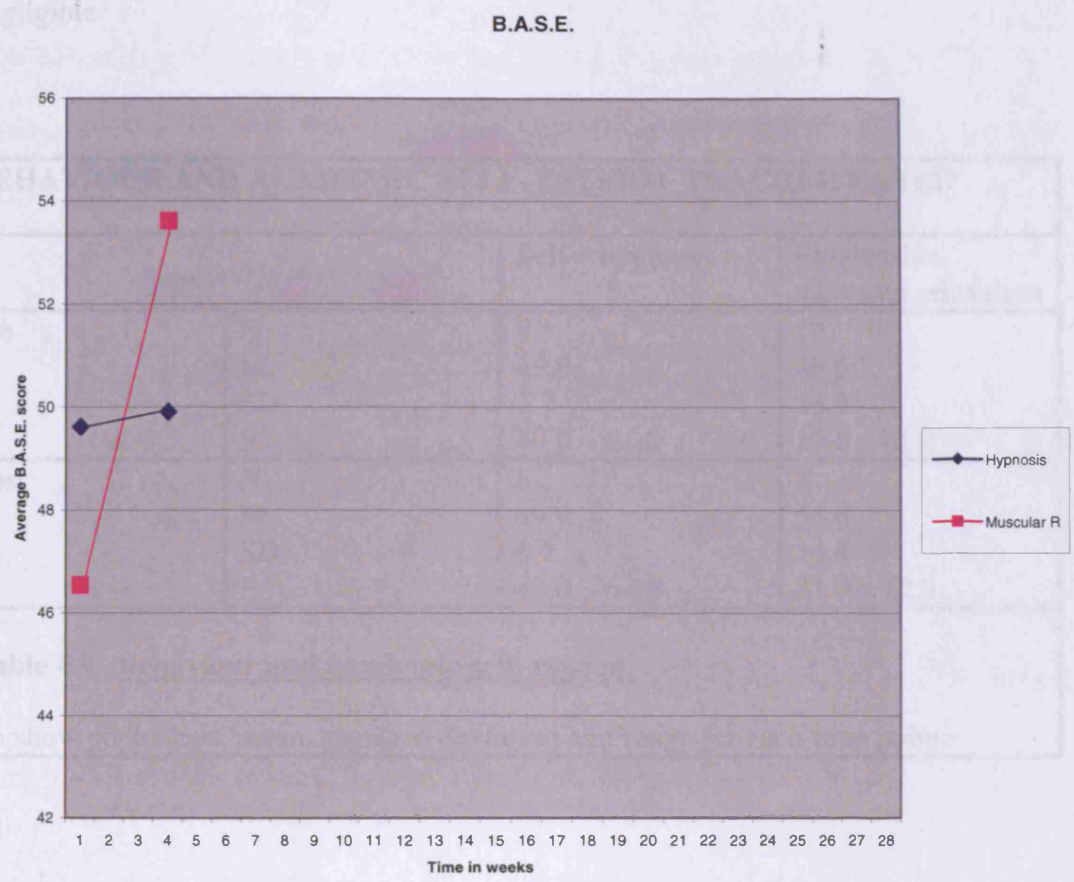

Figure 4.8 **To show changes in behavioural and academic self-esteem over the period of intervention.**

Figure 4.8 shows pre to post BASE teacher-rated measures increasing from 49.625 to 49.91667 (an improvement of 0.29167) for the hypnosis group compared with 46.55 to 53.625 (an improvement of 6.075) for the muscular relaxation group. This shows a greater improvement (by 5.783) for the muscular relaxation group. The

improvement perceived by the teachers to be made by the hypnosis group was negligible.

BEHAVIOUR AND ACADEMIC SELF-ESTEEM TEACHER RATED			
		Self – hypnosis	Progressive muscular relaxation
Pre	N M SD R	8 49.6 7.7 40.0 – 61.0	10 46.6 13.9 19.5 – 61.0
Post	N M SD R	6 49.9 6.7 42.0 – 62.0	8 53.6 14.4 31.0 – 72.0

Table 4.9 Behaviour and Academic self–esteem.

To show population, mean, standard deviation and range for each time point.

Analysis of variance (ANOVA)

Check

Whilst the test for equality of covariance of matrices was not significant, Levine's test for homogeneity of variance on the post measure F (1, 12) = 4.744, p = .05 suggested a problem with homogeneity of variance. Therefore an ANOVA was not completed. The data were recoded by taking the square root of each value but the problem was still present.

A non parametric test (Mann Whitney U of 19.500) also showed non significance.

4.2.9 Byron Personal Targets Scale.

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. An ANOVA carried out at five time points showed that:
   a. interaction between self-rated 'personal targets' across the time points and method was significant.
   b. there was a significant difference in participant rated 'personal targets' across the five time points (for both methods).
   c. there was a significant difference in personal target ratings between treatment groups.

2. The improvement between sessions one and two (figure 4.9) for the self-hypnosis group is greater than the improvement of the muscular relaxation group at each of the time points from pre to six month follow up.

3. Over the final five months follow up both groups show an apparent trend to continue to improve their personal targets very slightly.

A self-measure of personal targets established by each participant receiving hypnosis or muscular relaxation treatment was taken.

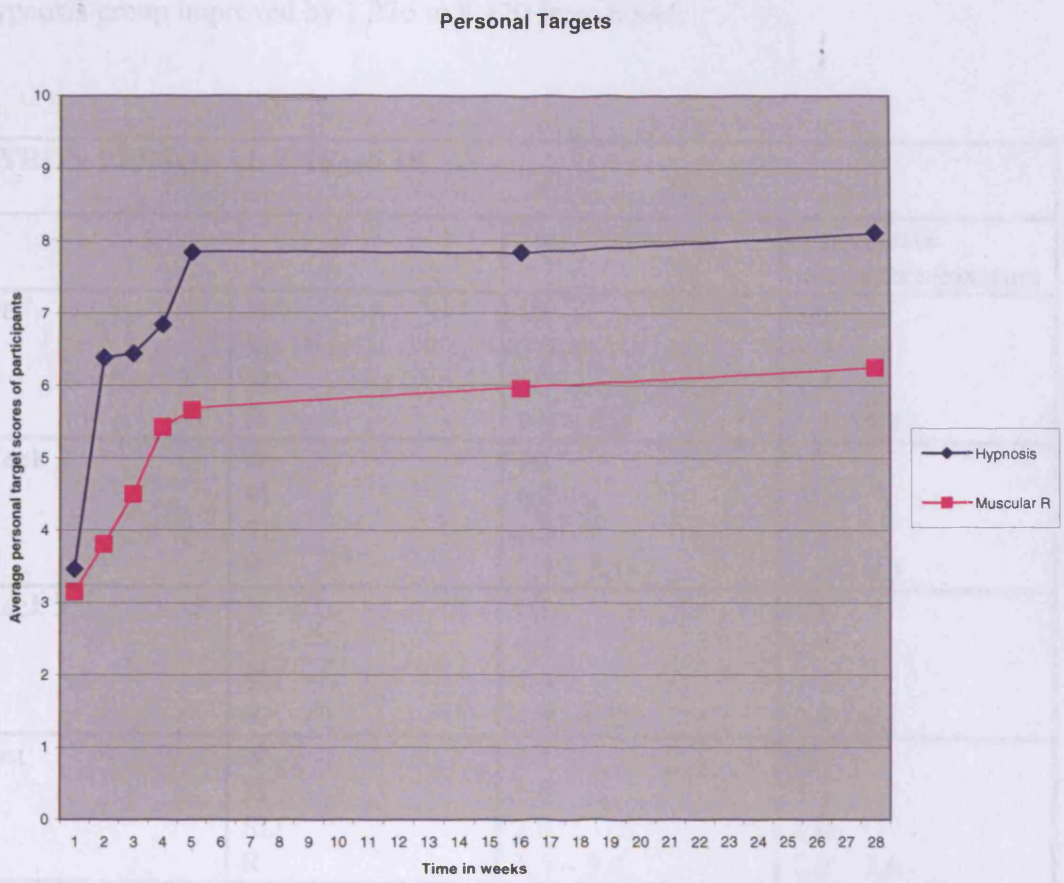

Figure 4.9 **To show changes in personal targets over the period of intervention and follow up.**

Figure 4.9 shows pre to one month follow up personal target measures increasing on a scale from 0 to 10 from 3.4694 to 7.846 (an improvement of 4.3766) for the hypnosis group compared with 3.1544 to 5.6637 (an improvement of 2.5093) for the muscular relaxation group. Both groups show improvement in personal target measures, with a greater improvement (by 1.8673) for the hypnosis group. From one to six month follow up both treatment groups continued to improve. The

muscular relaxation group improving by 0.832 to 6.256 from 5.424 whilst the hypnosis group improved by 1.276 to 8.120 from 6.844.

BYRON PERSONAL TARGETS			
		Self - hypnosis	Progressive muscular relaxation
Pre	N	10	10
	M	3.5	3.2
	SD	1.7	1.4
	R	1.0 – 5.8	1.3 – 4.3
Week 2	N	10	10
	M	6.4	3.8
	SD	1.9	1.8
	R	3.4 – 9.1	1.0 – 4.3
Week 3	N	10	10
	M	6.4	4.5
	SD	1.4	1.6
	R	4.3 – 8.2	2.4 – 6.4
Post	N	10	10
	M	6.8	5.4
	SD	2.6	1.8
	R	1.5 – 9.4	2.9 – 7.6
1 Month	N	10	10
	M	7.9	5.7
	SD	1.4	1.6
	R	5.9 – 9.9	3.1 – 7.0
3 Month	N	10	9
	M	7.8	6.0
	SD	1.6	2.6
	R	5.9 – 10.0	1.9 – 9.4
6 Month	N	9	8
	M	8.1	6.3
	SD	1.0	2.4
	R	7.1 – 9.9	3.3 – 9.4

Table 4.10 Byron Personal Targets.

To show population, mean, standard deviation and range for each time point.

Analysis of variance (ANOVA).

A mixed measures analysis of variance containing one within group measure (participant rated 'personal targets' at five time points: pre, sessions 2 and 3, post and first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

Interaction between self-rated 'personal targets' across the time points and method was significant, F (4, 72) = 2.741, $p<.05$. Figure 4.9 illustrates this interaction. Over time the personal target scores improve for both groups but do so more for the hypnosis group than for the muscular relaxation group.

There was a significant difference in participant rated 'personal targets' across the five time points (for both methods), F (4, 72) = 24.470, $p<.001$. A series of post-hoc t-tests revealed that personal targets were self rated higher at one month follow up than at pre treatment, t (19) = -7.292, $p<.001$ and higher at one month follow up than at session 2, t (19) = -3.643, $p<.05$ and higher at one month follow up than at session 3, t (19) = -5.634 $p<.001$ and higher at one month follow up than at post treatment, t (19) =-7.611, $p<.001$. There was a significant difference in personal target ratings between treatment groups, F (1, 18) = 7.223, $p<.05$.

4.2.10 Byron Effect on Home Life Scale (self-rated)

The research questions were "does the rating improve over the period of the

treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. Figure 4.10 shows an apparent trend for participants' home life to improve for both groups however an ANOVA was not possible and a non parametric test (Mann Whitney U) showed non significance.

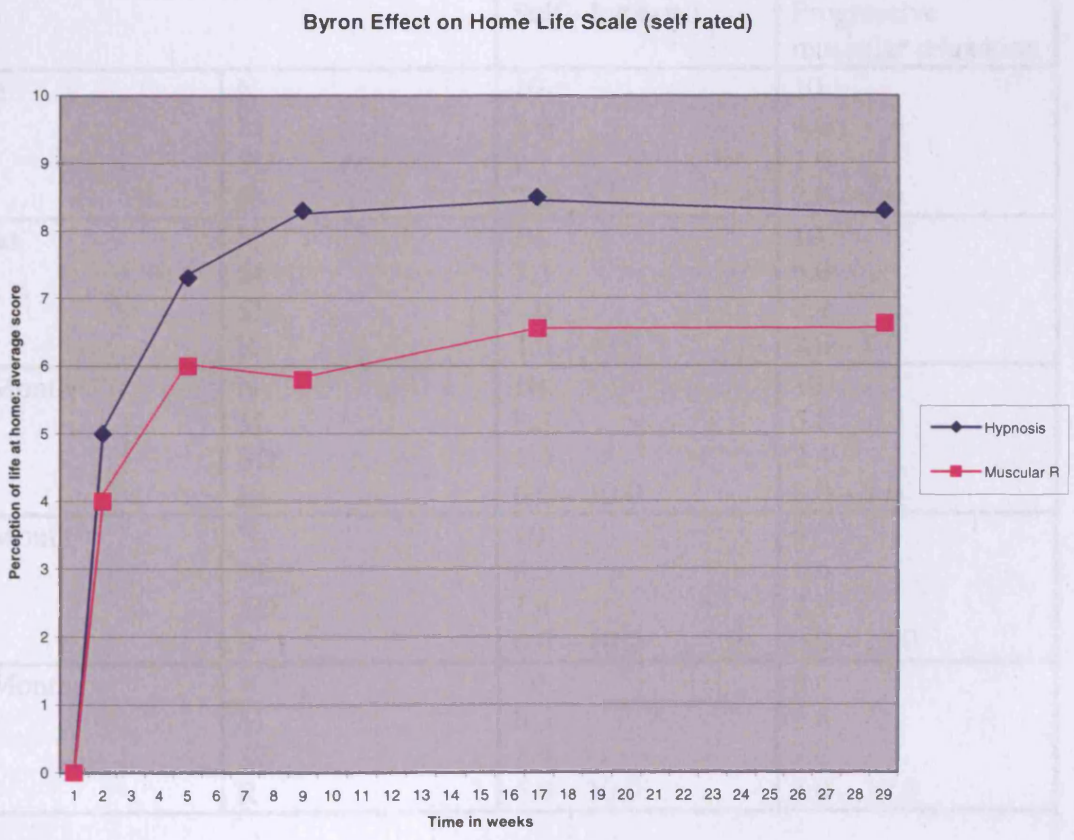

Figure 4.10 **To show changes in participants' perception of effect on home life over the period of intervention.**

2. Figure 4.10 also shows an apparent trend for most improvement in home life to be recorded by the self-hypnosis group. The non parametric test shows it is non significant.

3. Over the final five months follow up both groups record an apparent trend for continuing improvement in home life.

BYRON HOME LIFE SELF - RATED			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 5.0 2.2 2.0 – 8.0	10 4.0 1.6 2.0 – 7.0
Post	N M SD R	10 7.3 2.0 3.0 – 10.0	10 6.0 2.4 2.0 – 9.0
1 Month	N M SD R	10 8.3 1.4 6.0 – 10.0	10 5.8 2.4 3.0 – 9.0
3 Month	N M SD R	10 8.5 1.4 6.0 – 10.0	9 6.6 2.7 3.0 – 10.0
6 Month	N M SD R	10 8.3 1.4 5.0 – 10.0	8 6.6 2.7 3.0 – 10.0

Table 4.11 Byron Home Life Self – rated.

To show population, mean, standard deviation and range for each time point.

4. The self-hypnosis group showed an apparent trend to rate home life as more improved than did the muscular relaxation group at every time point although this could be due to chance. A measure of the perception of the effect on home life of the aspects covered by the personal targets set by each participant receiving hypnosis or muscular relaxation treatment was taken.

Box plots highlighted one outlier within the self-hypnosis group and none in the muscular relaxation group.

Figure 4.10 shows pre to one month follow up effect on home life measures increasing on a scale from 0 to 10 from 5.0 to 8.3 (an improvement of 3.3) for the hypnosis group compared with 4.0 to 5.8 (an improvement of 1.8) for the muscular relaxation group. Both groups show improvement in effect on home life measures, with a slightly better improvement (by 1.5) for the hypnosis group.

From one month to six month follow up the participant self-rated scores of the muscular relaxation group continue to progress by 0.825 to 6.625 from 5.8 whilst the scores of the hypnosis group remain at 8.3 which is 1.68 more improved than the muscular relaxation group.

Analysis of variance (ANOVA)

Checks

The test for equality of covariance matrices was not significant suggesting no problems with compound symmetry, but Levine's test for homogeneity of variance

was significant for the self rated perception of home situation at 1 month follow up, F (1,18) = 9.723, $p<.01$. This suggests problems with the homogeneity of variance assumption. The data were recoded, taking the square root of each self rated perception of home situation score. However, the homogeneity of variance problem was still present and the ANOVAs were not carried out.

A non parametric test (Mann Whitney U of 19.000) was significant at the one month follow up time point when compared with the pre measure time point for the self-hypnosis group.

4.2.11 Byron Effect on Home Life Scale (parent-rated).

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. There was a significant difference in parent rated perception of home life across the three time points (for both methods).

A measure was taken from their parent of the perception of the effect on home life of the aspects covered by the personal targets set by each participant receiving hypnosis or muscular relaxation treatment. There were no outliers in the data.

Figure 4.11 shows pre to one month follow up, effect on home life parent-rated measures, increasing on a scale from 0 to 10 from 4.4 to 8.2 (an improvement of

3.8) for the hypnosis group compared with 4.2 to 6.5 (an improvement of 2.3) for the muscular relaxation group. Both groups show improvement in effect on home life measures as rated by parents, with slightly more improvement (by 1.5) for the hypnosis group. There was a significant difference in parent rated perception of home situation across the three time points (for both methods), $F(2,36) = 32.524$, $p<.001$.

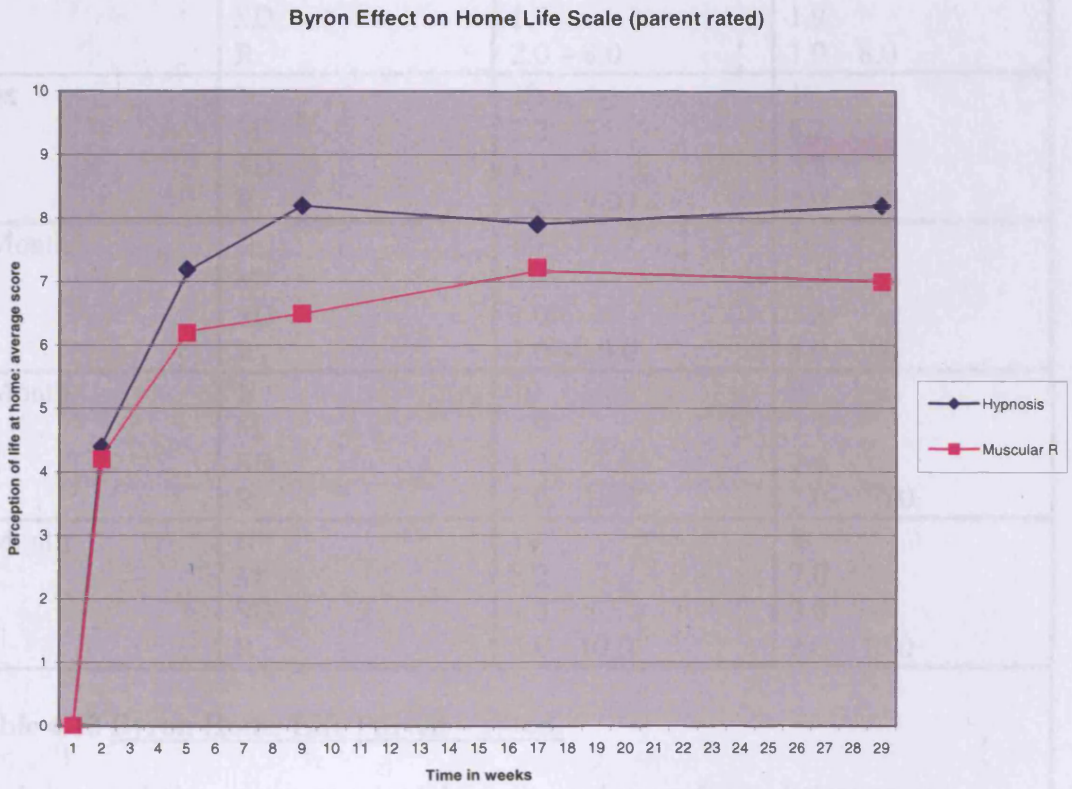

Figure 4.11 **To show changes in parents' perception of effect on home life over the period of intervention.**

From one to six month follow up the muscular relaxation group parent self-rated scores continue to progress slightly by 0.5 to 7.0 from 6.5 whereas the scores of the hypnosis group remain at 8.2, 1.2 ahead.

BYRON HOME LIFE PARENT - RATED			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 4.4 1.7 2.0 – 8.0	10 4.2 1.9 1.0 – 8.0
Post	N M SD R	10 7.2 1.7 4.0 – 9.0	10 6.2 2.2 2.0 – 8.0
1 Month	N M SD R	10 8.2 1.0 7.0 – 10.0	10 6.5 1.8 4.0 – 9.0
3 Month	N M SD R	10 7.9 1.2 6.0 – 10.0	9 7.2 2.6 3.0 – 10.0
6 Month	N M SD R	10 8.2 1.3 5.0 - 10.0	8 7.0 3.0 2.0 – 10.0

Table 4.12 Byron Home Life Parent – rated.

To show population, mean, standard deviation and range for each time point.

Analysis of variance (ANOVA).

A mixed measures analysis of variance containing one within group measure (parent rated perception of home situation at 3 time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

The interaction between parent rated perception of home situation across the time points and method was not significant, F (2,36) = 1.775, $p>.05$.

There was a significant difference in parent rated perception of home situation across the three time points (for both methods), F (2,36) = 32.524, $p<.001$. A series of post-hoc t-tests revealed that parent rated perception of home situation was higher at post treatment than pre treatment, t (19) = -5.724, $p<.001$,higher at first follow up than at pre treatment, t (19) = -7.494, $p<.001$ and was higher at first follow up than a post treatment, t (19) = -1.656, $p<.05$. There was no significant difference in the parent rated perception of home situation reported by the self-hypnosis and the muscular relaxation groups (for all time points), F (1,18) = 2.376, $p>.05$.

4.2.12 Locus of Control Scale for Children.

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. The difference in locus of control across the three time points (for both methods) only approached significance.
2. Figure 4.12 shows an apparent trend for both groups to move towards a more internal locus of control though this is not significant.

A measure of the locus of control of each participant receiving hypnosis or muscular relaxation treatment was taken.

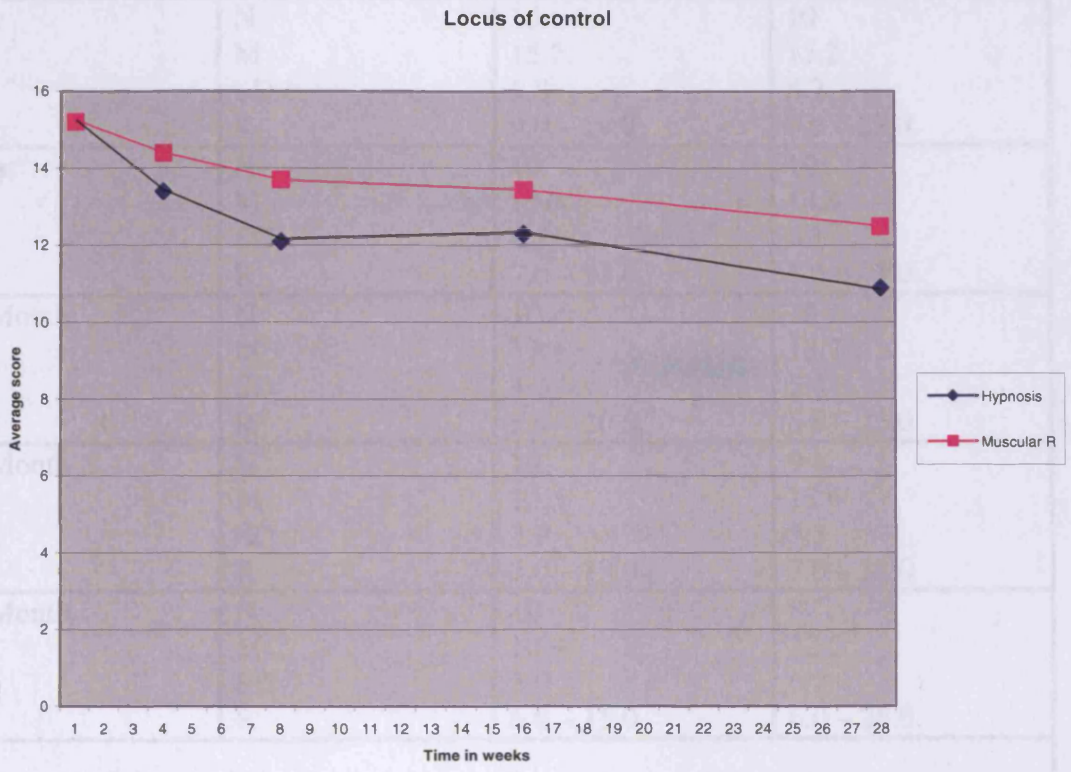

Figure 4.12 **To show locus of control over the period of intervention and follow up.**

The distributions for the self-hypnosis group contravened kurtosis constraints at the first time point which was slightly above three. There were however, equal numbers within each treatment group, alleviating this problem to some extent. Box plots highlighted two outliers within the self-hypnosis group and one outlier plus one extreme case in the muscular relaxation group. However, these were not removed as the N was already small.

LOCUS OF CONTROL			
		Self - hypnosis	Progressive muscular relaxation
Pre	N M SD R	10 15.2 5.8 9.0 – 29.0	10 15.2 5.2 8.0 – 22.0
Post	N M SD R	10 13.4 4.5 7.0 – 21.0	10 14.4 5.1 6.0 – 23.0
1 Month	N M SD R	10 12.1 4.1 5.0 – 20.0	10 13.7 5.7 5.0 – 25.0
3 Month	N M SD R	10 12.3 3.9 7.0 – 19.0	9 13.4 5.3 7.0 – 22.0
6 Month	N M SD R	10 10.9 3.0 6.0 – 15.0	8 12.5 6.2 6.0 – 26.0

Table 4.13 Locus of Control.

To show population, mean, standard deviation and range for each time point.

Figure 4.12 shows a slight increase in internal locus of control over all the time points for both treatments; from 15.2 to 13.7 for muscular relaxation and from 15.2 to 12.1 for self-hypnosis. From one month to six month follow up participants in both treatment groups continue to slightly reduce their score (ie towards a more internal locus of control) with the muscular relaxation group reducing a further 1.2 to 12.5 from 13.7 and the hypnosis group reducing by 1.2 to 10.9 from 12.1, showing slightly more internal locus of control than the muscular relaxation group.

Analysis of variance (ANOVA)

Checks

Levine's test for homogeneity of variance was not significant suggesting no problem withthe homogeneity of variance assumption but the test for equality of covariance matrices was significant, suggesting a possible problem with compound symmetry. Figure 4.12 shows the improvement in locus of control is maintained.

A mixed measures analysis of variance containing one within group measure (locus of control at 3 time points: pre, post, first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

> The interaction between time point and method was not significant, F (2, 36) =0.360, p>.05.
>
> The difference in locus of control across the three time points (for both methods combined) only approached significance, F (2, 36) = 2.929, p=.066. Although this result only approached significance a series of post-hoc t-tests was carried out in order to investigate any specific underlying relationships. Individually, locus of control was not significantly more internalised at post treatment than at pre treatment, t (19) = 1.386, p>.05, at first follow up than at pre treatment, t(19) = 2.118, p>.05 or at first follow up than at post treatment, t (19) = 1.320, p>.05.

There was no significant difference in the locus of control reported by the self-hypnosis and the muscular relaxation groups (for all time points), $F(1,18) = 0.187$, $p>.05$.

4.2.13 Improvement

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. There was a significant difference for improvement across the four time points (for both methods) when participants were asked how improved they felt on a 0 to 10 scale if 0 was where they were at their first session.
2. There was an apparent trend for self-hypnosis participants to show the most increase in improvement at one, three and six month follow up (figure 4.13).

A measure of how improved each participant felt compared to when they had attended their first session was taken. This was taken at sessions 2, 3, 4 and the 1 month follow up. There was a significant difference in improvement across the four time points (for both methods), $F(3, 54) = 10.830$, $p<.001$. There were no outliers or extreme cases in the data.

Figure 4.13 To show changes in participants' self-rating of improvement over the period of intervention and follow up.

Figure 4.13 shows pre to one month follow up, improvement (self-rated) measures, increasing on a scale from 0 to 10 from 0 to 7.45 (an increase of 7.45) for the hypnosis group compared with 0 to 6.55 (an increase of 6.55) for the muscular relaxation group. Both groups show self-rated improvement increasing over time with slighly more improvement (by 0.9) for the self-hypnosis group. There was a significant difference in improvement across the four time points (for both methods), $F(3, 54) = 10.830$, $p<.001$.

From one to six month follow up both treatment groups continue to record progress. The muscular relaxation group progressing by 0.388 to 6.938 from 6.55, whilst the hypnosis group progress slightly more, by 1.05 to 8.5 from 7.45.

IMPROVEMENT			
		Self - hypnosis	Progressive muscular relaxation
Week 2	N M SD R	10 5.3 2.2 2.0 – 8.0	10 3.7 2.0 0.33 – 7.0
Week 3	N M SD R	10 5.6 2.1 2.0 – 8.0	10 6.0 1.6 3.5 – 8.0
Post	N M SD R	10 6.4 3.0 0.0 – 9.0	10 6.2 1.8 2.0 – 8.0
1 Month	N M SD R	10 7.5 1.8 4.0 – 10.0	10 6.6 1.7 2.0 – 8.0
3 Month	N M SD R	10 7.7 1.3 6.0 – 9.5	9 5.8 2.9 2.0 – 9.5
6 Month	N M SD R	10 8.5 0.9 7.0 – 10.0	8 6.9 2.4 3.0 – 9.5

Table 4.14 Improvement.

To show population, mean, standard deviation, range for each time point.

Analysis of variance (ANOVA)

A mixed measures analysis of variance containing one within group measure (improvement at 4 time points: sessions 2, 3 and 4 (post) and first follow-up) and

one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

The interaction between improvement across the time points and method was not significant, $F(3, 54) = 1.639$, $p>.05$.

There was a significant difference in improvement across the four time points (for both methods), $F(1.95) = 10.830$, $p<.001$. A series of post-hoc t-tests revealed that improvement was higher at 1 month follow up than at session 2, $t(19) = -5.187$, $p<.01$ and higher at 1 month follow up than at session 3, $t(19) = -3.788$, $p<.05$. Improvement was not significantly higher at session compared to session 2, $t(19) = -2.749$, $p>.05$, at session 4 compared to 2, $t(19) = -2.773$, $p>.05$, at session 4 compared to 3, $t(19) = -1.274$, $p>.05$ or at 1 month follow up compared to session 4 $t(19) = -1.844$, $p>.05$.

There was no significant difference in the improvement reported by the self-hypnosis and the muscular relaxation groups (for all time points combined), $F(1, 18) = .558$, $p>.05$.

4.2.14 Effort

The research questions were "does the rating improve over the period of the treatment?" and "does the rating improve more for the self-hypnosis group than for the muscular relaxation group?" and the findings were:-

1. There was a significant difference in effort across the four time points (for both methods).
2. Up to and including the post measure, whilst not reaching significance, there was an apparent trend for the self-hypnosis group to report making the most effort though this was only slightly more than the muscular relaxation group.
3. After the post measure there was an apparent trend for effort to decline over time for both groups with the self-hypnosis group, from four and a half months follow up, declining furthest.

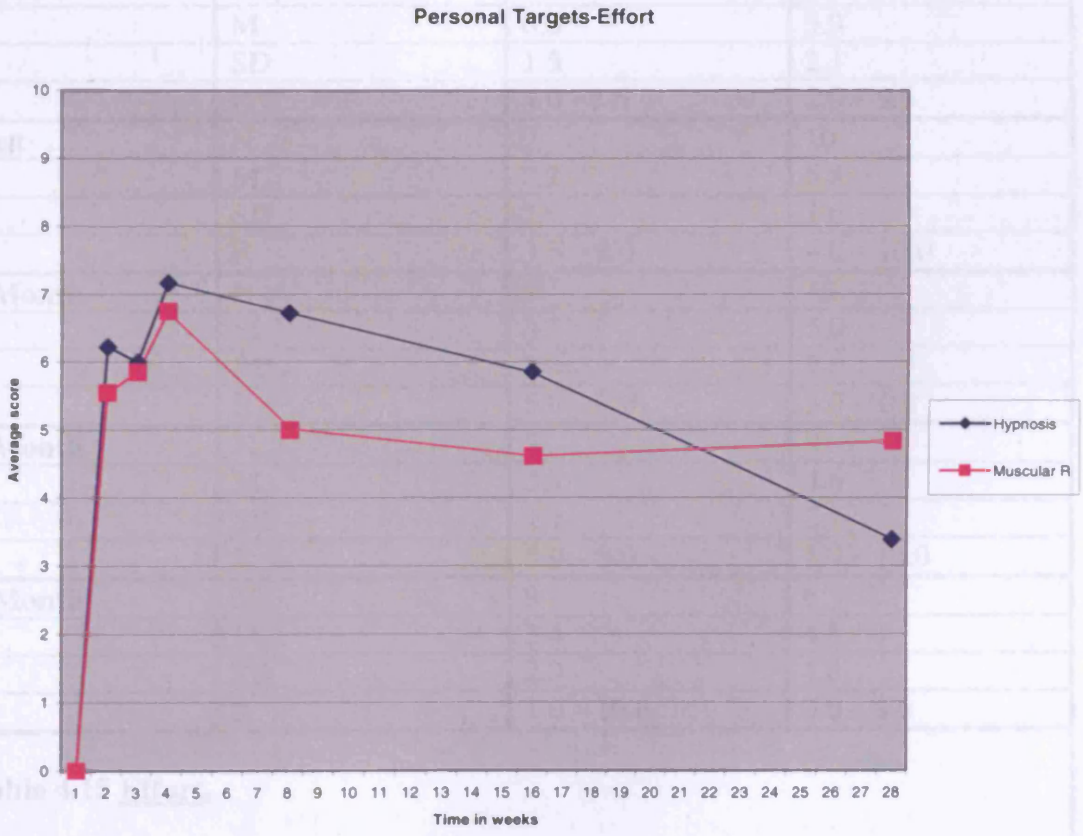

Figure 4.14 **To show changes in participants' self-rating of effort over the period of intervention and follow up.**

A measure of how much effort each participant felt they had been putting into the hypnosis or muscular relaxation treatment was taken at sessions 2,3,4 and 1 month follow up. For both treatments effort appears to peak following the third session which is when participants take over responsibility for delivering their treatment.

EFFORT			
		Self-Hypnosis	**Progressive Muscular Relaxation**
Week 2	N	9	10
	M	6.2	5.6
	SD	1.7	2.1
	R	4.0 – 9.0	3.0 - 10.0
Week 3	N	9	10
	M	6.0	5.9
	SD	1.5	2.1
	R	4.0 - 8.5	2.0 – 9.5
Post	N	9	10
	M	7.2	6.8
	SD	2.0	1.6
	R	3.5 – 9.0	4.0 – 10.0
1 Month	N	9	10
	M	6.7	5.0
	SD	1.4	2.0
	R	5.0 – 9.0	3.0 -10.0
3 Month	N	7	9
	M	5.9	4.6
	SD	1.1	2.7
	R	5.0 – 8.0	1.0 – 10.0
6 Month	N	9	6
	M	3.4	4.8
	SD	2.9	1.8
	R	1.0 – 10.0	3.0 – 8.0

Table 4.15 Effort.

To show population, mean, standard deviation and range for each time point.

The distributions for the muscular relaxation group contravened kurtosis constraints for time point four. There were two outliers in the muscular relaxation group and none in the self-hypnosis group. These were not removed as the Ns were already small and this would have made them unequal. Figure 4.14 shows pre to one month follow up, effort (self-rated) measures, increasing on a scale from 0 to 10 from 6.22 to 7.16 before falling back to 6.722 (an overall increase of 0.5) for the hypnosis group compared with 5.55 to 6.75 before falling back to 5.00 (an overall decrease of 0.55) for the muscular relaxation group. There is a trend for effort to decrease over time for both groups after session three. There was a significant difference in effort across the four time points (for both methods), $F(3,51) = 4.213$, $p<.05$.

From one to six month follow up both treatment groups record reducing effort scores. The muscular relaxation group reduce by 0.167 to 4.833 from 5.0 whilst the hypnosis group reduce by 3.334 to 3.388 from 6.722. The graph (Figure 4.13) shows an apparent trend for the hypnosis group putting in more effort than the muscular relaxation group until week twenty one.

Analysis of variance (ANOVA).

A mixed measures analysis of variance containing one within group measure (effort at four time points: sessions 2, 3 and 4 (post) and first follow-up) and one between groups measure (method: self-hypnosis, muscular relaxation) was carried out and revealed the following:

> The interaction between parent rated effort across the time points and method was not significant, $F(3, 51) = 1.748$, $p>.05$.

There was a significant difference in effort across the four time points (for both methods), $F(3, 51) = 4.213$, $p<.05$. A series of post-hoc t-tests revealed that effort was not significantly higher between any of the individual sessions. It was not significantly higher at session 3 compared to session 2, $t(18) = -.169$, $p>.05$, at session 4 compared to 2, $t(18) = -2.764$, $p>.05$, at 1 month follow up compared to session 2, $t(18) = .144$, $p>.05$, at session 4 compared to 3, $t(18) = -2.626$, $p>.05$, at 1 month follow up compared to session 3, $t(18) = .273$, $p>.05$ or at 1 month follow up compared to session 4, $t(18) = 2.933$, $p>.05$

There was no significant difference in the effort reported by the self-hypnosis and the muscular relaxation groups (for all time points), $F(1,17) = 1.083$, $p>.05$.

4.3 Examining research question three

This section examines research question three using correlation. Correlation looks for any systematic relationship between two variables. It is important to note that if such a relationship is discovered it is not possible to infer that it is a causal relationship only that there is a relationship (Davis & Bremner, 2006).

4.3.1 Anxiety (measured by the Beck Anxiety Inventory – Youth)

The research question was "is high commitment to improve associated with greater change in the measures over time?" and the findings are:-

Correlation of change in anxiety (as measured by the Beck Anxiety Inventory-Youth) with commitment was found to be significant at the following time point, pre to first follow-up (-.536* a negative correlation). The latter implies that there is a relationship between anxiety and commitment in that the reduction in anxiety from pre to first follow-up correlates with commitment. The correlation was based on a calculation made by subtracting the score at first follow-up from the prior to intervention pre-score. It is of note that correlation is greatly affected by sample size and that with small samples as in this study *"only very strong correlations will reach statistical significance"* (Barnes & Lewin, 2005).

Correlations of each of the other measures of anxiety, hopelessness, self-esteem, SDQ,

**NB. Correlation is significant at the 0.05 level (2 tailed).*

Personal targets, home-life, locus of control, improvement and effort with commitment were found to be non-significant.

4.4 Examining research question four

This section examines research question four using correlation.

The research question was "is high expectancy to improve associated with greater change in the measures over time?" and the findings are:-

Correlations carried out for each of the measures of anxiety, hopelessness, self-esteem, SDQ, personal targets, home-life, locus of control, improvement and effort

with expectancy were found to be non-significant for the three time points of pre, post and one month follow-up.

4.5 Examining research question five

This section examines research question five using line graphs (Figures 4.1 and 4.2).

The research question was "Are achieved changes in anxiety reduction maintained over time?" and the findings are:-

On the Beck Anxiety Inventory, during the final five months follow up of the self-hypnosis group an apparent trend for reduction in anxiety was maintained and continued to reduce very slightly whereas the muscular relaxation group regressed at three months and then recouped its anxiety reduction by the six month follow up (Figure 4.1).

On the Beck Anxiety Inventory-Youth over the final five months follow up (Figure 4.2) anxiety reduction showed an apparent trend to be maintained and to continue to reduce at each time point for the self-hypnosis group whereas for the muscular relaxation group a plateau effect was evident over the final five months.

4.6 Examining research question six

This section examines research question six using line graphs (Figures 4.1 to 4.14).

The research question was "Are achieved changes on the other measures used maintained over time?" and the findings are:-

The table (4.2) below illustrates that achieved changes showed an apparent trend to be maintained for the progressive muscular relaxation group over the six month

Measure used	Self-Hypnosis	Progressive Muscular Relaxation	See Figure Number
BAI	✓	✓	4.1
BAI-Y	✓	✓	4.2
BHS	✓	✓	4.3
SIP	✓	X	4.4
SDQ-Self	✓	X	4.5
SDQ-Parent	X	✓	4.6
Personal Targets	✓	✓	4.9
Home Life-Self	✓	✓	4.10
Home Life-Parent	✓	✓	4.11
LOC	✓	✓	4.12
Improvement	✓	✓	4.13
Effort	X	X	4.14

KEY: **✓= changes maintained over 6 months, X= changes not maintained over 6 months**

Table 4.16 To show maintenance of achieved changes over the six month follow-up.

follow-up for all of the measures except self-esteem, SDQ-self and effort. The table (4.2) also illustrates that achieved changes show an apparent trend to be maintained for the self-hypnosis group over the six month follow-up for all of the measures except SDQ (parent), and effort.

4.7 Summary of Results

4.7.1 Does the rating improve over the period of the treatment?

Rating improved at the level of significance over the period of the treatment for both methods combined on the following measures :

Beck Anxiety Inventory

Beck Anxiety Inventory-Youth

Beck Hopelessness Scale

Goodman Strengths and Difficulties (self-rated)

Goodman Strengths and Difficulties (parent-rated)

Goodman Strengths and Difficulties (teacher-rated)

Byron Personal Targets Scale*

Byron Effect on Home Life (self-rated) Figure 4.10 shows an apparent trend for participants' home life to improve for both groups.

**NB. There was also a significant difference on this measure between treatment groups*

Byron Effect on Home Life (parent-rated)

Improvement

Effort.

4.7.2 Does the rating improve over the period of the treatment more for the self-hypnosis group than for the muscular relaxation group?

An apparent trend for the rating to improve over the period of the treatment more for the self-hypnosis group than for the progressive muscular relaxation group was noted for the following measures :

***Beck Anxiety Inventory*:** This only approached significance (Figure 4.1).

Beck Anxiety Inventory-Youth: There was an apparent trend (Figure 4.2), though non significant.

***Butler Self-Image Profile*:** There was an apparent trend (Figure 4.5) for self-esteem to increase more but this was not significant.

***Goodman Strengths and Difficulties (self-rated)*:** There was an apparent trend (Figure 4.6) for greater reduction in difficulties than the muscular relaxation group but this was not significant.

***Byron Personal Targets Scale*:** The self-hypnosis group showed an apparent trend for greater improvement in personal targets (Figure 4.9) which was significant.

***Byron Effect on Home life Scale (self-rated)*:** There was an apparent trend for greater improvement in home life to be recorded (Figure 4.10) by the self-hypnosis group though this was not significant.

Byron Effect on Home life Scale (parent-rated): There was an apparent trend for greater improvement in Home life (Figure 4.11) though this was not significant.

Locus of Control: There was an apparent trend for greater improvement in internal locus of control though this was not significant (Figure 4.12).

***Improvement*:** There was an apparent though non significant trend for self-hypnosis participants to show a greater increase in improvement (figure 4.13).

In contrast rating improved over the period of the treatment more for the muscular relaxation group than for the self-hypnosis group on the following teacher reported measures:

***Goodman Strength and Difficulties (Teacher-rated)*:** There was an apparent non significant trend for teachers to perceive a greater reduction in difficulties in the muscular relaxation group (Figure 4.7).

***Coopersmith Behavioural and Academic Self-Esteem (Teacher-rated)*:** There was an apparent non significant trend for teachers to see most improvement in BASE in the muscular relaxation group (Figure 4.8).

4.7.3 Is high commitment to improve associated with greater change in the measures over time?

***Beck Anxiety Inventory-Youth*:** Correlation of change in anxiety (as measured by the Beck Anxiety Inventory-Youth) with commitment was found to be significant at the following time point, pre to first follow-up (-.536* a negative correlation), implying a relationship between anxiety and commitment.

4.7.4 Is high expectancy to improve associated with greater change in the measures over time?"

No significant findings were recorded.

4.7.5 Are achieved changes in anxiety reduction maintained over time?

Line graphs (Figures 4.1 and 4.2) show that for both the self-hypnosis and the PMR

**NB Correlation is significant at the 0.05 level (2 tailed).*

groups changes in anxiety reduction were maintained over the six month follow-up on the BAI and the BAI-Y (Table 4.2).

4.7.6 Are achieved changes on the other measures maintained over time?

Line graphs (Figures 4.3 to 4.14) show that for the PMR group changes achieved were maintained over time for all measures except SDQ (self), Self-Esteem and effort. Also for the self-hypnosis group changes achieved were maintained over time for all measures except SDQ-parent, and effort.

CHAPTER 5: DISCUSSION

5.1 Consideration of the research questions with regard to the results

The results of the pilot study and the main study, with regard to the two interventions of self hypnosis and progressive muscular relaxation, demonstrate that both interventions had a positive effect on student management of anxiety from the student self-ratings of their anxiety. Positive change was also evidenced from their self-ratings on the other measures (hopelessness, self-esteem, SDQ, personal targets, home life, locus of control) in addition to the ratings of them by their parents and also from the ratings of them by their teacher for the effect of progressive muscular relaxation.

The study is able to supply answers to the following key questions which it addressed:

1. Does anxiety reduce over the period of the treatment?
2. Does anxiety reduce over the period of the treatment more for the self-hypnosis group than for the muscular relaxation group?
3. Is high commitment to improve associated with greater change in the measures over time?
4. Is high expectancy to improve associated with greater change in the measures over time?
5. Are the changes achieved in anxiety reduction maintained over time?

6. **Are the changes achieved on the other measures maintained over** time?

5.1.1 "Does anxiety reduce over the period of treatment?"

The findings (both BAI and BAI-Y) show that anxiety reduces significantly for participants over the period of the treatment for both the muscular relaxation group and for the self-hypnosis group combined.

5.1.2 "Does anxiety reduce over the period of the treatment more for the self-hypnosis group than for the muscular relaxation group?"

The findings show that, over the period of treatment, there was an apparent trend (figure 4.2), though non significant, for anxiety (BAI-Y) to reduce more in the direction of the self-hypnosis group. Anxiety reduction on the BAI also reduced more in the direction of the self-hypnosis group though only approached significance.

5.1.3 "Is high commitment to improve associated with greater change in any of the measures over time?"

Findings from using correlation confirmed a significant relationship between high commitment and reduction of anxiety (as measured by the Beck Anxiety Inventory-Youth) over time. As mentioned previously in the results chapter correlation is greatly affected by sample size and that with small samples as is the case in this study *"only very strong correlations will reach statistical significance"* (Barnes &

Lewin, 2005). No significant correlations were found between high commitment and any of the other measures employed. It would be interesting to see if this remained the case were the study to be replicated with larger numbers of participants involved.

5.1.4 "Is high expectancy to improve associated with greater change in any of the measures over time?"

The findings using correlation confirmed that any relationships between expectancy and the various measures employed were not significant. Again it would be interesting to see if this remained the case were this study to be replicated with larger numbers of participants involved.

5.1.5 "Are the changes achieved in anxiety reduction maintained over time?"

The review of the literature noted that O'Neill et al's (1999) suggestion that future research could focus on a gap in their research, namely, treatment differences between self-hypnosis and relaxation, to examine maintenance of therapeutic gains over time. It was made an aim of this current study to do exactly that by following up participants for six months after the final intervention.

The findings, in relation to this question of maintenance of therapeutic gains over time, were that changes achieved in anxiety reduction were maintained following the intervention over the following six months period. On the Beck Anxiety Inventory, during the final five months of follow up the self-hypnosis group

continued to very slightly reduce anxiety whereas the muscular relaxation group regressed at three months and then recouped its anxiety reduction by the six month follow up (figure 4.1).

Findings from the Beck Anxiety Inventory-Youth over the final five months follow up (figure 4.2) show anxiety continuing to reduce at each time point for the self-hypnosis group whereas for the muscular relaxation group a plateau effect is evident over the final five months.

5.1.6 "Are the changes achieved on the other measures maintained over time?"

The following findings show that changes achieved on the other measures show an apparent trend to be maintained or continue to slightly improve over the six month follow up period for the self-hypnosis group except for SDQ (parent-rated) and effort. This trend is also seen for the PMR group except for self-esteem, SDQ (self-rated) and effort.

5.1.6.1 Hopelessness

From one month follow up to six month follow up the hopelessness measure remained the same for the muscular relaxation group but for the hypnosis group showed an apparent trend to continue to reduce slightly (figure 4.3).

5.1.6.2 Self-esteem

From one month to six month follow up on this measure the muscular relaxation group regressed slightly whilst the hypnosis group showed an apparent trend to raise their self-esteem (figure 4.4).

5.1.6.3 Strengths and Difficulties Questionnaire (SDQ) Self-rated.

Over the final five months of follow up the muscular relaxation group regressed slightly whilst the self-hypnosis group showed a slight continuation of reduction in difficulties (figure 4.5).

5.1.6.4 Strengths and Difficulties Questionnaire (SDQ) Parent-rated.

At all time points, including the six months of follow up, though not reaching the level of significance, the parents of the self-hypnosis group students report slightly more reduction in difficulties than did parents of the progressive muscular relaxation group students (figure 4.6) though this includes some regression over the follow up period.

5.1.6.5 Byron Personal Targets Scale.

Over the final five months follow up both groups show an apparent trend to continue to improve their personal targets very slightly (figure 4.9).

5.1.6.6 Perception of effect on home life (self-rated).

Over the final five months follow up both groups record maintenance of improvement in home life (figure 4.10). There was an apparent trend for the self-hypnosis group to rate home life as more improved than the muscular relaxation

group at each time point though the differences between the two treatment groups did not reach significance.

5.1.6.7 Perception of effect on home life (parent rated).

From one to six month follow up both groups parent-ratings for effect on home life are maintained (figure 4.11).

5.1.6.8 Locus of Control.

Over the final five months of follow up both groups show an apparent trend to continue to move slightly towards a more internal locus of control (figure 4.12).

5.1.6.9 Improvement.

Both groups although not at the level of significance, show an apparent trend to report slight increase in improvement over the six month follow up (figure 4.13).

5.1.6.10 Effort.

After the post measure, effort declined over time for both groups with the self-hypnosis group from four and a half months follow up declining the most (figure 4.14).

5.2 Findings of the study- related to pilot study findings.

The results necessitate discussion not least because of the relatively small numbers involved in each of the two intervention groups and a number of variables described below. The pilot study illustrated for the small number of students involved (three in each intervention) that self-hypnosis and progressive muscular relaxation were

effective in enabling them to reduce their anxiety and that there was an apparent trend for self-hypnosis to be the more effective of the two interventions when they were compared with each other. This is clearly illustrated in the pilot results graphs of the Beck Anxiety Inventory, Beck Hopelessness Scale, Butler Self-Image Profile (self-esteem), Goodman Strengths and Difficulties (both self-rated and parent rated), Byron Personal Targets Scale, Byron Home Life Scale (both self-rated and parent rated), (Appendices 9a to 9j), and on Locus of Control the self-hypnosis group shows slightly increased internal locus of control (this was not available in the pilot for the progressive muscular relaxation group).

The pilot study graphs of measures of the participants completed by teachers are in contrast with those of participants and parents in that the Coopersmith Behavioural and Academic Self-Esteem shows little change for the progressive muscular relaxation group and for the self-hypnosis group this is in a negative direction. In addition teacher completion of the Strengths and Difficulties Questionnaire shows no change for the muscular relaxation group and negative change for the self-hypnosis group. The conclusions in the pilot study were that both methods of intervention led to improvement in anxiety in participants and that on all measures the self hypnosis group improved more than the progressive muscular relaxation group the only exception being when teacher ratings were recorded which then confirmed little or no change except for the self-hypnosis group on the SDQ measure which were perceived to get worse.

In the main study which had ten participants in each group the findings show that for both interventions combined significant effects in reducing anxiety in

participants were found. Also that there was a non-significant trend for self-hypnosis to be more effective than progressive muscular relaxation for reducing anxiety as there was for the other measures mentioned above. This finding was also consistent for the additional measures added to the main study for how improved participants rated themselves as being at each session and also for how much effort participants rated themselves as putting into practising the intervention between sessions. The exception, as in the pilot, were teacher rated scores which confirmed progressive muscular relaxation as the more effective intervention and confirming negligible change for the self-hypnosis group. Participants' commitment to change was found to have a correlation with anxiety (BAI-Y) implying that there was a relationship between the two. No other significant correlations were found for commitment with the remaining measures. Participants' expectation to improve was not found to be significantly correlated with any of the measures.

A key outcome measure of this study is the reduction of anxiety through teaching participants an intervention which they can apply by themselves to themselves and when they decide they need to. This had an empowering effect on the participants. The next section provides examples of the changes which participants were able to bring about to managing the anxiety they experienced and also the changes revealed by the other measures.

5.3 Methodological issues

5.3.1 Measurement of anxiety

In this study two measures of anxiety were used, the BAI, because it has demonstrated a high degree of reliability and validity in young populations (Jolly, Aruffo, Wherry & Livingston, 1993), and the BAI-Y, which claimed to provide a measure of anxiety for the specific age group involved in the study. The results confirm that both measures reflect similar findings for both the self-hypnosis group and for the progressive muscular relaxation group. It appears that there was no advantage in using the two measures of anxiety rather than one.

5.3.2 Other measures

A number of other measures were also used and some of these were developed specifically for this study and are not standardised (e.g. Expectancy, Commitment, Improvement, Effort, Byron Effect on Home Life Scale, Byron Personal Targets Scale). Therefore caution needs to be exercised particularly regarding their validity. The Byron Personal Targets Scale achieved its aim well of involving participants in a process of thought and reflection and discussion about their anxiety and possible causes as well as providing a means for the participants to measure any changes over time. When data from two or more sessions have been recorded on this scale it then can be used as a vehicle for positive feedback of change to the participant. This was carried out by showing the participant two of the scales completed at different sessions and asking them for their observations. This process for feedback is more powerful than the therapist providing feedback to the participant on his observations from comparing the two scales. The participants are put in the position of doing this

in order to inform the therapist but in so doing are processing the information and also informing themselves of positive changes which they have made. This is a good illustration of the empowering nature of the therapeutic approach adopted in this study. If the participant omits to feedback a point of difference which the therapist has observed the therapist can then follow this up appropriately.

5.3.3 Participants

The participants came from a variety of secondary schools and therefore were subject to different environmental and school system variables. The schools and catchment areas were varying distances away from the therapist's office and thus involved participants in different commitments with regard to distances travelled and time taken to do this, to access the intervention. This was amplified even more in cases where public transport was the only option. The significance of this is that varying degrees of effort were required from participants simply to get to the point of accessing the treatment intervention and the effect of this on degree of engagement with the treatment or on the outcome is not known. This could have been controlled for more if all participants had been seen for treatment at the same place. For self-hypnosis five participants were seen at home and five at the office and for progressive muscular relaxation four were seen at the office and six at home.

5.3.4 Issues in Sampling

Participants who took part in the main study all presented with anxiety and took part on a voluntary basis following a brief introductory meeting, which included their parent(s), so there was self selection being exercised by their choosing to engage in an intervention to reduce their anxiety and prior to being randomly allocated to one

of the two interventions. The sample in the main study, with twenty participants, was comparatively small. This means that findings can only be provisional and should be treated with caution. However where statistically significant findings are reported in the results this suggests some robust effects.

5.3.5 Issues in Design

The two groups in the study were compared after receiving instruction in one of two different techniques for managing anxiety. Whilst the number of sessions was the same for both groups and the length of time of the sessions very similar they could vary slightly and this was determined by the participants' response rate and also the ability of the participants to understand (although this was not measured) as one or two participants required more explanation than others in completing questionnaires. Sometimes the clinical issues which were presented took longer to address within the session. In one instance a participant was feeling unwell and this illustrates a variable which cannot be controlled for, the human factor of each participant's variability at each session which they attended in terms of how focussed they were, how distracted they might be by other issues in their life etc.

5.3.6 Standardising the intervention sessions

The consistency of the intervention sessions was ensured by following written process checklists for each of the two interventions with all participants. This also ensured a homogeneity of content and process sequencing in delivery and that no omissions occurred through forgetfulness on the part of the therapist. All the sessions for each intervention were delivered by the same therapist but daily variations in the well being, focus and functioning of the therapist are human factors

which cannot be controlled for. Furthermore, some participants were seen at home for all of their sessions because of transport difficulties, whilst others were seen at the therapist's office for all of their sessions and there is no way of knowing what effect this may have had on the receptivity and attitude of the participant involved, their parent or the therapist. These points could deserve further investigation in future studies.

5.3.7 Therapist effects

In striving for consistency of delivery and controlling for variables the therapist was aware that some clinical spontaneity may have been lost and that this raises ethical implications in conducting clinical research. In addition, during the several months in which data was collected for the study the writer was aware, through reflection and supervision, of becoming more proficient and effective at for example, providing participants with constructive feedback during the sessions and establishing rapport, and that it was not possible to control for this professional development which may or may not have had an even impact across the two treatment groups.

There is also a major design problem in the study which is fundamental to action research (section 1.3.5) in that the therapist and the researcher are one and the same and may hold a particular view which could introduce bias. This was acknowledged by the researcher by writing protocols to follow to encourage consistency, and by randomly allocating participants to the two treatment groups but this does not remove the potential for bias. Apart from this problematic issue of the therapist researching their own interventions there are also positive aspects in that the

therapist is exposing their work to open and public scrutiny, sharing processes and ideas with a wider audience. In addition, the act of analysing and reporting on the work is likely to lead the writer to reflect on their central role in the process of the research and increase their level of sensitivity to its impact. This is an educational process in itself. A significant value of reflection is its potential to change future action.

My reflections match what commentators on action research have suggested (Frost, 2002; McNiff & Whitehead, 2002; Herr & Anderson, 2005; Somekh, 2006). As well as providing a form of self-reflective enquiry the experience of this action research study has encouraged me to maintain in systematic approaches in my professional work, a cautious stance to generalising about it and a habit of giving close attention to how to make my methods of assessment and recording as reliable as possible. All this has deepened my understanding not only of the research process and its findings but of the clinical strategies themselves

5.4 Implications of the findings in relation to theory and practice

5.4.1 Progressive muscular relaxation

Findings from the results of the effectiveness of progressive muscular relaxation in reducing the anxiety of participants appear to confirm the findings of Setterlind and Unestahl (1978) and Setterlind and Patriksson, (1980) who when teaching school children relaxation training programmes found positive effects in the reduction of anxiety. The findings also appear to agree with the those of Weisman, Ollendick and

Horne (1974) who noted the beneficial effects of teaching adolescents relaxation skills and with Jorm et al's (2004) conclusion for the effectiveness of relaxation training for the treatment of anxiety disorders. The involvement of self is documented in the literature (Khan & Fromm, 1992) and can have an extremely empowering effect putting as it does the participant in control and may well be a contributing factor to the effectiveness of the participant employing progressive muscular relaxation for themselves. In view of the findings of this study it would appear to be certainly worth teaching EPs the skills of how to deliver progressive muscular relaxation and for EP training courses to consider including it in their training syllabus.

5.4.2 Hypnosis

The positive finding of this study, of the effectiveness of hypnosis in reducing the anxiety of the participants, confirms the observation of Rhue, Lynn and Kirsch (1994) that hypnosis can be applied to anxiety disorders. The study finding also provides evidence to support the effective application of hypnosis for anxiety, as noted by Schoenberger (2000). Certainly the findings of this study confirm the view of hypnosis as a tool to be used as an adjunct to the professional training of the therapist (Olness & Kohen, 1996, p xii; British Psychological Society, 2001, p13). The point here being that hypnosis is used as a vehicle to apply the skills of the professional using it be they psychological, medical, dental etc. and that hypnosis is not a therapy in itself but a tool for therapy.

There are suggestions that alliance and positive rapport, between participant and therapist, to ensure agreement and consent of the hypnotized participant are

important for hypnosis to occur, and that this may be enhanced by dispelling myths and misconceptions about hypnosis (McNeilly, 2001; Yapko, 2003) and by the participant being informed and understanding that hypnosis is not something done to them and that they will remain in control during hypnosis (Zeig, 2001; Capafons et al, 2005). These suggestions were employed by the therapist at the initial meeting with each participant to enhance the intended outcome. This may be an interesting area for future research to explore what difference is evident in outcomes when comparing a group where this information is provided with a group where it is not.

5.4.3 Self-hypnosis with children and adolescents

Although all the participants in this study had not previously experienced hypnosis or self-hypnosis, all were able to learn and apply the skill without any apparent difficulties and did so by first taking home specific tapes made for them by the therapist to take away and practise to develop mastery of important aspects of the clinical session (Lynn, Kirsch, Nuefeld & Rhue, 1996). It is however important to note that "each individual's experience of hypnosis can be very different" (Kahn & Fromm, 1992) and an attempt at such a comparison was not within the remit of this study

It is documented in the literature that the involvement of self (Khan & Fromm, 1992) can have an extremely empowering effect putting as it does the participant in control. The progress made by participants in this study who were using self-hypnosis was made with the advantage of reducing reliance on the therapist whilst increasing the participant's feeling of self-control (Martinez-Tendero et al, 2001). This and the point made in the literature that an advantage of self-hypnosis is that it

encourages growth and independence in the client and helps them to confirm that they do have control of their lives (Yapko, 2003) would appear to be supported by the findings of this study. However it is an area of interest for further research and could be explored by comparing a group using self-hypnosis with a group receiving hetero-hypnosis (Appendix 13).

The findings of this study of the effectiveness of self-hypnosis for young people, in spite of the small numbers involved, has implications for EP practice. EPs currently do not receive training in hypnosis in their initial training. However once an EP has become experienced in working with children and parents and has consolidated the knowledge and skills acquired in initial training they would then be in a more realistic position to consider undertaking training in applied hypnosis. Training in applied hypnosis would therefore seem to be most appropriately considered for EPs as part of continuing professional development (CPD). I suggest it is more appropriately considered for CPD rather than initial training because hypnosis is simply a tool like a pen or a paintbrush and it is the skill with which it is used together with the applied psychology and experience and skills of the psychologist which is likely to determine the effectiveness of its application.

5.4.4 How self-hypnosis and PMR differ

This study has earlier considered both self-hypnosis and progressive muscular relaxation in their own right but it may be useful to consider why if self-hypnosis achieves different results from progressive muscular relaxation that might occur. Theoretical accounts (O'Neill et al 1999; Andrews et al,2003; Yapko, 2003) point to progressive muscular relaxation helping individuals both to recognise tension and to

completely relax their bodies focussing more on the physical components of an individual's experience of anxiety. In comparison accounts of self-hypnosis (Lynn, et al, 1996; O'Neill et al, 1999; Zeig, 2001; Capafons et al, 2005) note it focuses more on the cognitive components of an individual's experience of anxiety including use of suggestion, imagery or cognitive mastery and actively involves the individual in their own treatment. This enables and encourages the individual to explore and contribute from their inner resources to their therapy whereas this is not so with progressive muscular relaxation. This last observation together with the focus on the cognitive components of an individual's experience of anxiety may be contributing to why in this study self-hypnosis achieved different results from progressive muscular relaxation.

5.4.5 Self-esteem

In the literature on studies of young people who showed discrepancies between their perceptions of their ideal selves compared with their perceptions of their real actual selves, and which is referred to as self-esteem, anxiety was found to correlate significantly with self-esteem (Cowan, Zax, Klein, Izzo & Trost, 1965). For this reason the measure of self-esteem was included in this study. The findings of this study show the positive effect of the two interventions on improving self-esteem. The non significant trend in this study of greater positive change in self-esteem by participants following self-hypnosis compared with progressive muscular relaxation is in agreement with studies reported in the literature for the effective application of hypnosis for self-esteem (Macfarlane & Duckworth, 1990; O'Louchlan, 1995; Moss & Oakley, 1997; Saur & Oster, 1997; Stanton, 1997; Reupert & Mayberry, 2000). A finding of this current study which replicates Cowan et al's (1965) finding is that as

anxiety has reduced so self-esteem has increased. In addition this study found an apparent trend for reduction in anxiety and increase in self-esteem to be greater for the participants using self-hypnosis.

5.4.6 Locus of control

A positive correlation has been identified in the literature between self-esteem, internality and achievement (Lawrence, 1996). Studies have also identified that higher locus of control scores (i.e. more external and more powerless) were associated with a greater history of anxiety disorder (Andrews et al, 2003). It was hypothesized that locus of control may be a useful measure of the effectiveness of techniques, such as progressive muscular relaxation and self-hypnosis, that enable participants to reduce anxiety, particularly where the participant has been actively involved. The findings of this study appear to lend some support this hypothesis. Findings of this current study show a non significant trend for both groups to move towards a more internal locus of control (graph 4.12).

5.4.7 Expectancy

The literature confirms that the significance of positive expectations in influencing outcomes is identified and stressed in most models of psychotherapy (Kirsch, 1990; Yapko, 2003). Suggestion is greatly utilised in hypnosis, and in accepting a suggestion an individual is then believing and expecting it to happen (Kirsch, 2000). Expectancy was utilized in this study by involving participants directly in discussing their beliefs and expectancies for the experience of being hypnotised as suggested in the literature (Duncan, Miller & Coleman, 2001; Scheflin, 2001). Expectancy was also utilized in this way for participants in the progressive muscular

relaxation group. The findings of this study using correlation did not confirm that high expectancy to improve was associated with greater change on the employed measures over time.

Involving participants directly in discussing their beliefs and expectancies for the experience of being hypnotized, or muscularly relaxed, it is necessary to involve them cooperatively in the process (Duncan, Miller & Coleman, 2001; Scheflin, 2001) which also lends itself admirably to the process of self-help and empowerment addressed later in this chapter.

Knowing the importance of positive expectations for participants in view of the benefits noted from the findings in this study one could hypothesize that in the same way it could be possible for negative expectations to have the opposite effect. It is therefore important to be wary of causing negative expectations in participants and this could be explored further in future research by comparing two groups, one group where positive expectations were encouraged and one group where negative expectations were encouraged. The ethical implications of such research would need to be given careful consideration.

5.4.8 Commitment

Commitment is defined earlier in this study as the pledging or binding of oneself, as in committing oneself to a course of action. Commitment has the effect of stabilising a decision (Janis & Mann, 1977) and the literature acknowledges the magnitude of addressing client commitment to treatment goals as an ingredient of the curative process (Mussell et al, 2000). Exactly what a person is prepared to do

should logically depend on how committed they are to the behaviour. So attempting to influence how a person feels eg. anxious, in the direction of how they would like to feel eg. calm, is likely to be influenced by the degree of their commitment to want to change. In this current study therefore participants were asked at the outset how much they wanted to change the way things were. The findings in this study from using correlation confirmed that commitment had a mediating effect on the BAI measure changes over time. No correlation was found for any of the other measures with commitment.

5.4.9 Effort

Effort has been noted to be a critical variable in relation to commitment. Keisler (1971) proposed that the more effort in the response the more readily learned is the response, and Betts (2003) highlighted the critical aspect of the personal effort the patient is prepared to put into the treatment. A hypothesis in this current study was that the degree of effort by the participant in applying either of the two intervention techniques would play an important part in influencing the outcomes including reduction of anxiety. This study measured and monitored the effort which each participant felt they were putting into applying the intervention technique with the therapist taking opportunities to recognize, encourage and support participants' effort (Stone, 2001). Findings included a significant difference in effort across the four time points (for both methods) up to and including the post measure. There was an apparent though non significant trend for the self-hypnosis group which reported making the most effort, though this was only slightly more than the muscular relaxation group. These findings appear to agree with Altice and Friedland (1998)

and Betts (2003) regarding the importance of the part played by effort in influencing therapeutic outcome.

Both treatment groups report similar patterns of effort at the second, third and fourth appointments, with the self-hypnosis group consistently reporting slightly more. After the fourth appointment (post measure) effort for both groups begins to decline and this is greater for the progressive muscular relaxation group at one and three month follow up visits. One explanation for this may be that as anxiety reduces so does the urgency and motivation to want to do something about it and so to does the need to make the effort.

A second explanation could be that as participants became more proficient and skilled in applying their intervention technique they felt that less effort was being expended by themselves even though they might be applying it more effectively. It would be interesting for a future study to consider further the link made between amount of participant effort and *"intent to comply with the prescribed therapy"* (Dezii, 2001, p3).

5.4.10 Improvement

The measurement of improvement, ie. asking the participant at the first session how improved they think they will be at the end of the treatment, was originally included to establish their expectations for the success of the treatment outcome. Then at subsequent sessions participants were asked to rate how improved they thought they were, and were asked this immediately before asking them how much effort they felt they were making in applying the technique. This was in the hope that the

proximity of the questions might facilitate the reflection of participants on the potential relationship between effort and improvement.

Findings from the results show there was a significant difference for improvement across the four time points of session two, three, post and one month follow up (for both methods combined) when participants were asked how improved they felt on a 0 to 10 scale, if 0 was where they were at their first session. Self-hypnosis participants show a non significant trend for the most increase in improvement at one, three and six month follow up (graph 4.13), rating themselves as 85% improved at six month follow
up compared to a rating of 70% at this stage by the progressive muscular relaxation group

5.4.11 Empowerment of participants

The whole thrust of this study involves empowering the participant in every way possible from the earliest opportunity right through to the last session. Participants, and not their parent(s), were made clearly responsible for listening to their tapes for example and sometimes this had to be particularly stressed with parents. They were also given examples of when it might be difficult to practise the technique and that all kinds of unforeseen circumstances and demands in their lives may sometimes make it impossible for them to practise. This was also done with the aim of diminishing any feelings of guilt which may arise from not practising. Participants were also told that usually the more they were able to practise each day, the sooner they would acquire the skills to apply the technique without needing to use the tapes.

There appear to be two aspects involved in empowering the participants. Firstly participants are being taught a skill, progressive muscular relaxation or self-hypnosis, which they can learn to apply to themselves and which has noticeable effects and which helps to bring about desired change to improve their lives. Secondly this is in contrast to what most young people experience when they receive help which often consists of someone doing something to them or for them. Here they are enabled to help themselves whenever they decide they need this self help and they can apply it wherever they happen to be. Participants are able to exercise greater control over their lives and independently of others. This also leads to an empowering feeling of control.

So empowerment is probably a combination of learning a new skill, and a skill which usually no one else in the family has, together with the self-help aspect and the independence from others, and the increasing awareness of the effectiveness of their application of the skill, as it begins to improve their life, together with their feelings of increasing control, confidence and self-esteem.

The way in which feedback on progress was given (see section 5.3.2) also contributed to empowerment in that it was emphasised to participants that all the therapist had done was to teach them a technique but that they were the one who learned, practised and applied the technique and put the effort in. Thus any changes being observed were directly related to what they themselves were doing with the technique. The therapist felt that this approach also helped to give participants more belief in themselves.

Treatment adherence is an important consideration for participants in the application of any treatment. In this study audio tapes were given to participants to help them to practice and to avoid forgetting what to do. It is clear that an accurate count of the frequency of listening to the tapes by participants could have informed answers to questions including "do the participants who adhere best improve most?" or "is it useful to know how often participants listened?" or "what are the limitations of listening to tapes?"

Regarding the latter question various skills are required when listening to the tapes including listening skills, memory, concentration and processing skills. There is variation in participants in how well they listen and how easy they find it to remember the process followed on the tapes. Apart from individual variation in memory ability some individuals are able to concentrate more effectively than others. Even if a careful record was maintained of frequency of listening to the tapes it is clear that reliability and validity of the measure would be problematic. Most found that reaching a point where they do not use the tapes is helpful and preferable whilst a minority of participants found it useful to have the tapes available to fall back on in case of difficulty. The absence of information on frequency of listening to tapes could be regarded as a weakness of the study and perhaps an area for future study.

The deliberate "indirectness" of the way in which the treatments were delivered by the therapist and the placing of responsibility for practice most clearly with the participant (not their parent) is an aspect of the empowering and psychological

approach adopted in this study and was felt to acknowledge the issue of treatment adherence in attempting to avoid the establishment of any resistance in the participant which could lead to non adherence.

5.4.12 The impact of follow up visits

Follow up visits at one, three and six months were made with participants to check for maintenance of the changes which they had achieved by the end of the intervention. Initially this was built in to the project as a way of collecting evidence that changes achieved by participants were being maintained. However as the study progressed the therapist began to realise that the visits were also providing the therapist with an opportunity to reinforce, praise and encourage the participants in their application of the technique, as well as being able to show them positive feedback on their progress by what they had recorded in completing the measures at that visit and comparing these with their earlier measures from previous visits.

The therapist began to speculate on the fact that the follow up visits not only showed maintenance of the changes post intervention but that these visits in themselves may be contributing to these changes continuing, which is what the findings indicated. Also the fact that a follow up visit has been arranged moves the situation to a dynamic one, rather than remaining a static one, and sets certain expectations which might not be set if the follow up visit was not arranged. As mentioned in the previous section above the follow up visits enabled the therapist to work on empowerment aspects for the participants. An interesting area for further research to consider would be to compare a group receiving such follow up visits with a group not receiving such visits. A way would have to be found to measure

the group not receiving visits at six months after intervention was completed but without them knowing until that six month point.

It is interesting that the follow up visits felt unusual and a different experience for the researcher. The normal practice of every day EP work usually precludes visits made simply for monitoring purposes due in part to demands on EP time and also to some extent the limited EP involvement in therapeutic work. However the increasing recognition by EP Services of the importance of evidence based practice could begin to influence this. Certainly the findings in this study endorse the benefits of making such visits.

5.4.13 The Impact of Involving Parents

A parent was present with each participant at each session. There were advantages and disadvantages in this but it was felt the former outweighed the latter. With the parent present for example it was possible to get a second perspective and this sometimes was at odds with that of the participant which in itself could be informative. Sometimes the parent added a view which the participant had omitted, but was happy to confirm when they heard it and which avoided important information being lost. Also with the parent present it was possible to ask the participant to comment on an observation made by the parent.

A counter argument against involving parents at each meeting with the participant is that neither has the privacy to say what they may wish to and that because the opportunity to do so never arises there may be important and relevant things left unsaid. However overall the presence and contribution of the parent added another

dimension to the therapist's understanding of the participant's situation and helped to inform the words which the therapist ultimately used with the participant .

There were occasions when the therapist was able to see parent behaviours which were possibly contributing to, or reinforcing, some of the participant's presenting problems and had the parent not been present the therapist may have remained unaware of this and certainly would not have been in a position to attempt to modify some of these. For example at one session the therapist became aware that each time after inviting from the participant some positive observations of progress, his mother, without exception, would bring down the upbeat tone of the conversation by adding some negative observations. The therapist would then have to revisit some of the participant's positive observations to try and lift things back to where they had been whilst giving less attention to the mother except when she made a more positive comment which the therapist could then also make a positive observation about. Again if the mother was answering a question which had been put to the participant the therapist would inform her that it was a question for the participant to consider or that he was particularly interested in the participant's answer.

This example of the need at times for the therapist to be more assertive with a parent illustrates how difficult it was for the therapist to interact in a consistent way across all of the participants and parents in the study. It also illustrates how it is not possible to stand still in that the therapist was all the time reflecting and learning from each situation and so subtle changes were taking place in the therapist's skills throughout the study. There is also a potential conflict when researching clinical

work in that the therapist may wish to avoid intervening in the research interests of maintaining consistency of approach with participants but this could be unethical with regard to the therapeutic interests of the participants.

In all cases it was informative to compare how parent and participant interacted at the final session with how they had interacted at the first. It may be illuminating for future research to consider a more formal way of recording observations of changes in participant parent interaction and participant therapist interaction, perhaps by use of video. An example often observed by the therapist was the frequency of visual checking by the participant with the parent, when asked a question by the therapist, and how over time this visual checking would become less as their confidence grew. Also the therapist rather than feeding back observations might ask the parent, "I wonder if you have noticed any thing which xxxx is doing differently now compared to when we first began meeting?" or " do you notice xxxx doing more or less of anything now compared to at the beginning?"

At the later or final sessions it was sometimes very noticeable how much more a participant was smiling or calmer or looking less frequently at their parent when asked a question by the therapist. There might be less finger fiddling or restlessness when sitting or increased eye contact. Some participants would also manifest a greater confidence and assurance, for example sometimes volunteering information without being asked. So often even before administering the measures to the participant the therapist could be aware that changes were taking place. Having a parent present provided the therapist with the opportunity to be able to call upon them to verify an observation for the participant. Also in the session the parent or

the participant in answering one of the therapist's questions would clearly communicate an insight into the other's thinking which the other had not been aware of up to that point. Other non verbal observations made included silent tears rolling down a mother's cheek whilst listening to the response of her child during therapy and the strength of grip and vigour of the parent shaking hands with the therapist when leaving the end of a session. One should exercise caution when speculating what may be conveyed by this. Sometimes parents wrote to the therapist with their observations after the sessions were completed. An example of such a letter is provided in Appendix 12.

Parent completion of questionnaires

As mentioned in earlier chapters caution needs to be exercised in interpreting data from questionnaires. Biases can have an effect upon ratings. It has been observed that anxious parents may be more sensitized to their child's anxieties or if they are depressed they may have a more pessimistic response set (Rutter, 1997). Ratings have also been noted to be influenced by halo effects where they are based not only on observation of a specific behaviour in the question but also on a general impression of the child (Aman, 1993). A further influence on responding to questionnaires may include the agenda spoken or unspoken which the parent brings to the situation.

5.4.14 Teacher observations

In this study the completed measures from the observations of teachers is in contrast to those received both from parents and from participants. The teachers perceived a non significant trend for most reduction in difficulties and greatest reduction in

difficulties (on the SDQ) to be for the muscular relaxation group. The improvement perceived by teachers for the self-hypnosis group was negligible. This is in contrast to both participant feedback and parent feedback on the SDQ. In addition this contrast in perception was repeated in the findings from the teacher feedback on the BASE in the muscular relaxation group.

So teachers in contrast to participants and parents saw little if any positive change in the self hypnosis group and the greatest positive change as taking place in the progressive muscular relaxation group. How can we account for this contrast of teachers' perceptions both with those of the actual participant employing the intervention technique and with those of the participants' parents? Participants using self-hypnosis were in a few instances described by teachers as becoming more "stroppy" which was usually a reference to the participants' noticeably increased confidence and assertiveness exemplified by the fact that they may question requests more and become less compliant. Often teachers may not appreciate a pupil becoming more assertive and may see this as a more challenging attitude. Caution must be exercised when speculating on this that in addition perhaps there is more visual feedback from the participants using progressive muscular relaxation in that they look more physically relaxed than they did previously whereas the self-hypnosis group may not display outward evidence of this physical relaxation to match their internal experience of change, including reduction in anxiety and increased self-esteem and locus of control, as is evidenced in the findings of this study.

This may suggest then that teachers find themselves less in touch with the feelings of their pupils than the pupils are themselves, which is not surprising, and that they are generally less in touch with pupil's feelings than the parents of these pupils are. Also for whatever reason teachers are not registering this positive change reported by participants in the self-hypnosis group even though it is also reported by their parents. The teacher completing the questionnaire was nominated by the participant as someone who knew them well in class and who they felt comfortable with completing the questionnaire about them. Unfortunately no record was made of the frequency of contact which the participant had with that teacher each week and this might be a factor influencing how in touch the teacher was with that participant and for future research to bear in mind.

Teachers may be simply overloaded with information and so task driven that there is not the space or time for them to notice or reflect on some changes in pupils but then if this is so why did they notice change in the progressive muscular relaxation group? This is a generalization and I am sure there will be exceptions but again it points to an interesting area for further research to examine this question of why teachers' perceptions are in contrast to those of both participants' and of parents'. An alternative explanation could be that the changes reported by participants in the self-hypnosis group relate to how they think and feel which are much more difficult to observe and that changes in the progressive muscular relaxation group may be manifested more externally in their outward physical appearance.

The rater is only able to rate what they see so in the case of teachers (and parents) they may well be completely ignorant of a participant's specific worries, feelings of

unhappiness or anxieties. The quality of the relationship which the teacher and the participant have may also introduce some bias in responding by the rater. It is also true that a teacher (like a parent) tends to see a participant only in particular contexts and these contexts can reflect the amount of structure in a school situation and in regarding tasks the participant is occupied in which can influence particular attention. Judgment is often a requisite of ratings regarding the extent to which the participant displays some quality such as unhappiness for example and which inevitably leads to comparison by the teacher with other pupils that they teach which may also sometimes include a sibling of the participant.

Future research could consider the benefits of conducting interviews with teachers, after they return questionnaires, to try to explore some of the questions arising around the contrast in teacher perceptions with those of participants and their parents, of changes they observe taking place in participants. Additional research could also consider the effect of anxiety reduction by these techniques on friendships and social life.

5.5 What this study shows which previous studies have not.

Consistent with earlier research (Benson et al, 1978; Soskis et al, 1989; O'Neill et al, 1999) is the finding in this study that both techniques were constructive in the management of anxiety. However this study investigated the use of the two techniques in a comparatively younger age group, namely students at school.

The literature notes that accounts published of the use of hypnosis to manage children's anxieties tend to relate either to medical and dental procedures (Hilgard

& Baron, 1984; Anbar & Hall, 2004; Anbar & Gessler, 2004) or to schooling dealing mostly with achievement or attendance (Krippner, 1966; Olness & Kohen, 1996; Byron, 2002). This current study differs from other studies in that the focus is specifically directed at reducing young people's anxiety related difficulties which are affecting their school life, home life and social life. It shows that teaching participants progressive muscular relaxation or self-hypnosis both enable a reduction in anxiety to be achieved with a cumulative persuasiveness in the consistency of results across all measures in the direction of self-hypnosis. In addition the study is showing that the progress achieved in reducing anxiety through applying both treatment techniques is not only maintained over the six months following intervention but that it continues to slightly reduce over this time.

This current study involving young people learning to employ techniques to help them reduce their anxiety is different from earlier work in that it has attempted to explore the effect of the young person's expectancy on outcomes and also the effect on outcomes of their commitment to change and their level of effort. Whilst these effects have been explored on an adult population (O'Neill, 1999) the researcher is not aware of these effects being previously explored on the age group in this current study. The study is also different from others in that after first asking participants at session one how improved they think they will be at the end of the treatment it then asks participants at each subsequent session to rate their level of improvement. This is useful in gaining an appreciation of what the participant brings to the therapy session with regard to level of expectation and how this is changing or not over the duration of the sessions.

A further difference in this study is that it attempts to examine the effect on life at home

of a reduction in participants' anxiety. Findings show that, in conjunction with the reduction achieved in anxiety, participants' home life improved for both intervention groups with a non significant trend for the most improvement in home life recorded by the self-hypnosis group (graph 4.10). The most improvement in home life noted by parents was recorded by parents of the self-hypnosis group (graph 4.11). Though this apparent trend was non significant, parents of the self-hypnosis group rated home life as more improved than did the muscular relaxation group at every time point measured.

In addition this study has attempted to examine whether the two interventions, in the process of enabling participants to reduce their anxiety, have an impact on the participants' locus of control. The findings, though small and non significant, show that both the self-hypnosis group and the progressive muscular relaxation group move towards a more internal locus of control with the self-hypnosis group showing the most change in this direction at each time point (graph 4.12). There is a cumulative persuasiveness, although non significant, regarding the consistency of results across all of the measures in the direction of the self-hypnosis group.`

This study also shows a finding which others have not, that teachers saw it differently in terms of the impact of the two interventions on the participants. Whereas the participants in the self-hypnosis group reported a greater effect than the progressive muscular relaxation group, and this was matched by that reported by

their parents, the teachers saw the progressive muscular relaxation group as improving more than the self-hypnosis group.

Finally, the educational impact of this study should not be overlooked, that in empowering young people to not only reduce their anxiety for themselves but also to experience the other measurement effects noted earlier, this therapeutic process is freeing them up to be able to take more advantage of the learning experiences and opportunities provided by their school and in this respect also this study is different from other studies.

CHAPTER 6: CONCLUSION

6.1 Validity of questionnaire data

In discussing the validity of questionnaire data as applied to subjects who had undergone hypnosis or progressive muscular relaxation we are discussing whether the questionnaire data from these subjects measures what it claims to measure? Certainly the questionnaires used had face validity in that their items appeared relevant to what was being measured and this can have an effect on the participants completing the questionnaires. If items appear irrelevant to the participant they may not see the point in completing the items and may become less motivated and less cooperative (Hammond, 2006).

Other issues of validity include the age of questionnaires, whether the meaning a questionnaire has today is the same as the meaning it had when it was developed say fifteen years ago. Also the country the questionnaire originates from is important for example in Britain we often use measures developed on samples in the United States of America so in this example the questionnaire would need careful consideration before use. It is also a function of validity as to whether a questionnaire used is an appropriate use of that questionnaire. It is not always possible to find a suitable questionnaire already available and in such cases one has to be constructed specially which was why the Byron Personal Targets Scale and the Byron Effect on Home Life Scale came into being.

The Byron Personal Targets Scale and the Byron Effect on Home Life Scale were piloted along with the other questionnaires used for this study but they have not been standardised. The Byron measures were constructed to measure change in particular aspects of participants' perceptions in this study and in using them they appear to have been sensitive to measuring change in their respective areas. Ideally all scales used would be standardised with adequate reliability and validity as clearly non standardised scales do not have this. Therefore any results from the Byron measures must be interpreted with reservation and at best should only be taken as indicators.

Only one questionnaire used in the study appeared to have an issue associated with length. The Locus of Control Children's Scale took longer for participants to complete than any of the other scales used. It was because of its length that it was administered second immediately after the first questionnaire which took very little time to complete and it was followed by another quickly completed questionnaire. It was felt important to do this to try to anticipate an effect which may reduce the motivation of the participant. This questionnaire was also the oldest used having been developed in 1973. Ages of other measures used include BASE (1982), BAI and BHS (1993), SDQ (1996), BAI-Y (2001) and SIP (2001).

The Butler Self Image Profile appeared to be consistently accurate in that when I gave participants at the post-measure interview my interpretation of their scores on this measure and asked how this compared with how they felt and thought about themselves with regard to level of self-esteem they confirmed its accuracy in every case.

6.2 The importance of expectation

It is a conclusion of this study that expectation has played an important part in the outcomes achieved by the participants. Section 1.4.2 referred to the relationship between beliefs, expectations and hypnosis and how similarities in the effects of placebos to the effects achieved by hypnotic suggestion have been observed (Glass & Barber, 1961) and used by Kirsch (1990, p145) to support the view that, *"hypnotic responses are hypothesized to be a function of a subject's hypnotic response expectancies"*. That section also noted the importance of involving the participant cooperatively in the process by inviting them to discuss their expectancies and beliefs for the experience of being hypnotised. This study set out to follow this process with each participant as part of establishing the therapist/client rapport, a crucial aspect of any successful therapy.

It is only on reflection that the researcher has accidentally realised a further part also played by expectancy in the therapist establishing at the outset with each participant a list of personal targets. By eliciting this list from each participant of things they wished to change which would make their life better prior to them being taught how to use either treatment, and remember personal targets changed in a positive direction in the case of every participant whichever treatment they used, this process could be regarded as also utilising expectancy. This would appear to agree with Kirsch (1999, p143) who noted that according to an expectancy theory of hypnosis, *"expectancy is an essential aspect of hypnosis, perhaps its most essential aspect."*

6.3 Implications for EP policy and practice

There are implications for EP policy and practice when considering the findings of this study which informs us that progressive muscular relaxation and self-hypnosis in particular can be effective techniques for reducing anxiety in young people. Currently there is little if any reported application of hypnosis with young people in school to help them address anxiety. In my own LEA this was a completely innovative initiative. Elsewhere in the country there is little if any use reported of the therapeutic application of hypnosis to help young people address anxiety related issues which can present them with considerable barriers to learning and to social interaction. It is still relatively unusual for an EP to be involved in delivering a therapeutic service to young people, or to young people with their parents. This study has indicated the effectiveness of the therapeutic approach of teaching young people the technique of progressive muscular relaxation and particularly self-hypnosis to manage and reduce their anxiety.

This study makes a case for EP services to be considering the professional development and training of EPs in hypnosis to deliver this type of therapeutic service for young people. This is not to imply that it is only EPs who are capable of delivering such a service but that experienced EPs are very well placed to offer and deliver such a service and particularly if it utilises applied psychology. In the next few years as EP Services develop as a part of Children's Services and perhaps more as Community Psychologists and work more closely with other agencies including CAMHS and Social Services there may be less restriction from the time allocation models of recent years and more flexibility for EPs to include in their work the delivery of therapeutic services both individually and jointly with other

professionals. The study has also shown that the need exists in the school population for this type of service. It also raises the question of how young people with similar needs elsewhere in the country are having their needs addressed, or not.

This study has highlighted the value of including parents in this type of therapeutic service for schoolchildren. Currently Educational Psychology Services primarily work with children and young people up to the end of their school or college career. The study has also provided the therapist with several instances where it would have been advantageous, probably for both the young person and the parent, for the therapist to work not just with the young person but to also to work therapeutically with the parent. It raises a question of how ethical is it in such circumstances to deliver therapy only to the young person. This can be particularly difficult as in one example when a single parent mother expresses desperation for help. This request clearly had mental health and well-being implications for how adequately she was able to parent and support her child's emotional needs and which may have had attachment implications which influenced the child's attendance at school.

The study has also identified that it is not easy for teachers to register even quite significant positive changes which are taking place in a student and that EPs may have a part to play in facilitating this recognition by teachers in school.

A further implication for EP policy and practice is that of follow up visits. In the case of this study, follow up visits have provided considerable weight and evidence as to the effectiveness of the intervention of using progressive muscular relaxation and using self-hypnosis by illustrating not only maintenance of changes over time

but also particularly in the case of self-hypnosis for many of the measures **continued** change over this time. The study has also illustrated how follow up visits can be used with constructive and empowering benefit for the participant by providing opportunities for the therapist to recognise and name progress made by the participant and to acknowledge the effort they have made and provide encouragement.

A unique aspect of EP work lies in the application of psychology. This study provides significant examples of the application of psychology, particularly in the examination of the effect of commitment and expectation of participants on future outcomes and the way in which this knowledge is built into the therapeutic approach for both interventions. The follow up meetings provide a powerful example of applied psychology in action.

This study whilst illustrating the benefit of EPs measuring change and collecting evidence of the efficacy of approaches they employ has demanded additional time and effort in order to do this. The implication for EP services is that time needs to be made available and built in to an EP's time budget in order for evidence based practice to be developed, evaluated and disseminated through professional publications for the profession of educational psychology.

6.4 Personal and professional development

This study came about via an intensive one year part time diploma in applied hypnosis at UCL followed by a wish to read further about the subject and research

more rigorously the evidence the writer was discovering and collecting for the effectiveness of applying hypnosis in his practice.

This study, undertaken as part of the doctorate research requirements, has enabled the writer to further develop the knowledge and skills employed in the therapeutic interventions with participants and parents. It has also raised the writer's level of awareness of the critical importance for EPs in measuring and collecting evidence of the effectiveness or otherwise of what they do. It also emphasizes the important part which personal and professional development can play, both for individual EPs and for the profession of educational psychology.

In conclusion it feels a great professional and personal privilege to have been able to work with the students and parents in this study and to have witnessed them bringing about such huge positive changes for themselves and in so doing being able to move on with their lives.

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Process Checklist for Muscular Relaxation

Student's name .....

1.	Initial phone call to parent.		Give Tape 1.		
2.	Initial meeting with parent and student.		5.	Meeting No. 3 - check progress	☐
3.	If confirm send BASE and Goodman forms to school for completion	☐		- check personal targets	☐
4.	Meeting No. 2			collect tape 1.	☐
	• Measure personal targets	☐		- give out tape 2	☐
	• + commitment	☐			
	+ expectation	☐	6.	Meeting No. 4 - check progress (2 wks after mtg 3)	☐
				- check personal targets	☐
				- introduce self-operated cue and to listen sat in chair	☐
	• Locus of control	☐	7.	Meeting No. 5 - check for changes	☐
	• Beck Anxiety Inventory	☐		(1 wk after mtg 4)- set new targets	☐
	• Beck Anxiety Youth	☐		- check personal targets	☐
	• Self Image Profile	☐		- post measures	☐
	• Beck Hopelessness Scale	☐		- demonstrate student can bring about relaxation without needing external help	☐
	• Home life	☐		- discuss how now able to trigger relaxation at critical times	☐
				- mention how technique is intended to place student 'in control' and they decide when to use it	☐ ☐
	• Goodman S & D → Student	☐			
	→ Parent	☐			
	• Read out muscular relaxation instructions	☐	8.	Follow up visit 1. after 1 month	☐
				+ give out Parent Satisfaction Questionnaire	☐
	• Give copy of muscular relaxation guidelines	☐	9.	Follow up visit 2. after 3 months	☐
			10.	Follow up visit 3. after 6 months	☐

Appendix 1b

The Muscular Relaxation Approach: Description of Sessions

(see Pilot Chapter section 2.5.3)

Session One:

A case history was taken. Personal targets were established and pre-measures of BASE and SDQ questionnaires were requested from the participant's school. The student was given instructions of physical relaxation exercises to follow with a tape recording (Appendix 7) provided for practice between sessions 1 and 2 to practice daily at home for one week and to note any changes.

Session Two:

Practice of tape one was reviewed, as was progress on personal targets. Tape Two (Appendix 8) was delivered to the student and a copy given to the student to listen to at home, as near to daily as possible, for one week.

Session Three:

Practice of tape two was reviewed, as was progress on personal targets. Any observed changes in behaviour and feelings were recorded . The student was instructed to take the same tape away to listen to, but to also visualise a pleasant scene, perhaps from a holiday, each time the instruction to take a deep breath was given on the tape. Practice was daily for one week.

Session Four:

Progress was reviewed and personal targets were monitored. Post measures were taken including an SDQ from the parent. School was requested to complete post-measures including the BASE and the SDQ.

NB: *A process checklist can be found in Appendix 1a.*

Appendix 2

Guidelines for Muscular Relaxation Training

(To be read out to subject at first session and give them a copy).

- Relaxing is as skill – it improves with frequent and regular practice.
- Relaxation training can best take place in the quiet of your own home.
- Set aside a fixed time each day when you can be alone and undisturbed.
- Choose a room free from distractions.
- Make sure none of your clothing is restrictive.
- Give yourself enough arm room and floor space.
- Have handy a comfortable but firm hard backed chair.
- Have a cassette recorder available.
- Each exercise will involve stretching and tensing certain muscles followed by relaxing the same muscles with the aim of noticing the difference between feelings of tension and relaxation.

Do not tense your muscles to the point of discomfort or hold the tension for longer than 7 seconds.

N.B. If you feel pain or the muscles remain tense or go into spasm then forgo the tensing stage and concentrate only on relaxing the area concerned.

- No exercise is intended to do more than produce a degree of tension compatible with your own individual limits of what is comfortable but you clearly should profit from the exercise.
- Take each exercise to whichever point is necessary to enable you to distinguish between feeling tense and feeling relaxed.
- Do the exercises whenever you notice yourself becoming tense.
- Remember to let yourself enjoy the feeling of relaxation.

Appendix 3

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Process Checklist for Hypnosis/Self-Hypnosis

Student's name .....

1.	Initial phone call to parent.	☐	
2.	Initial meeting with parent and student.	☐	
3.	Meeting No. 2 • Measure personal targets	☐	
	• + commitment	☐	
	• + expectation	☐	
	• Locus of control	☐	
	• Beck Anxiety Inventory	☐	
	• Self Image Profile	☐	
	• Beck Hopelessness Scale	☐	
	• Home life	☐	
	• Goodman S & D (Student / Parent)	☐	
	Hyp. Session 1	☐	
	• Give tape of session 1.	☐	
	• Send BASE and Goodman forms to school for completion	☐	
4.	Meeting No. 3 - check progress	☐	
	- monitor personal targets	☐	
	- Session 2	☐	
	- give tape 2 of session 2	☐	
5.	Meeting No. 4 - check for changes	☐	
	- monitor personal targets	☐	
	- Session 3	☐	
	- Self-hypnosis	☐	
	Read out instruction for Self Hypnosis	☐	
	Give out guidelines for Self Hypnosis	☐	
6.	Meeting No. 5 - monitor changes	☐	
	- check for personal targets	☐	
	- post measures	☐	
7.	Follow up visit 1. after one month	☐	
	+ give out parent Satisfaction Questionnaire	☐	
8.	Follow up visit 2. after three months	☐	
9.	Follow up visit 3. after six months	☐	

db/hypnosis/processchecklistDec06

Appendix 4b

The Self-Hypnosis Approach: Description of Sessions

(see Pilot Chapter section 2.5.2).

Session One:

Case history and pre measures were taken. Personal targets were established which the participant decided they wished to achieve during the intervention. Pre measures of Coopersmith's Behavioural and Academic Self-Esteem questionnaire (BASE) and Goodman's Strength and Difficulties questionnaire(SDQ) were also requested from the participant's school. The first hypnosis session included an induction, progressive relaxation, deepening, special place, habit change and post hypnotic suggestion (see Appendix 13) for an elaboration of these terms). A tape recording was made of the session and given to the student who was asked to listen to it as near to daily as possible until the next meeting one week later. Parent and student were also asked to note any changes in the behaviour and the feelings of the student.

Session Two:

The frequency of listening to the tape was reviewed. Personal targets were monitored and any changes discussed and noted. This hypnosis session was similar to session one but also addressed ego strengthening (see Appendix 13). A tape recording of this session was again provided for the student to listen to at home as near to daily as possible until the next meeting one week later.

Session Three:

After reviewing the frequency of listening to the tape, monitoring of personal targets and any changes noted in the participant's behaviour and feelings, session three continued. In this session age-progression (Appendix 13) was included and also practice in self hypnosis (Appendix 13). The student was asked to practice self-hypnosis daily at home. Written guidelines for practising self-hypnosis were read to participants with a copy provided for them to take away.

Session Four:

This session consisted of a review of the use of self-hypnosis and any changes, noted by participant and parent, followed by completion of post-measures. The school was also contacted to complete post-measures.

NB: *A process checklist for self-hypnosis can be found in Appendix 4a.*

Appendix 5

Guidelines For Your Self-Hypnosis Training

- Self-hypnosis training can best take place in the quiet of your own home.
- Set-aside a fixed time each day when you can be alone and undisturbed.
- Choose a room free from distractions.
- Make sure none of your clothing is restrictive.
- Initially you will need a cassette player available.
- Choose a comfortable chair or settee which can support your body and particularly your head.
- To benefit from self-hypnosis you will be instructed how to:

1. relax your muscles group by group
2. concentrate on your breathing
3. use deepening, counting or visualisation techniques to feel completely relaxed and achieve a focussed mind
4. give yourself general coping suggestions to feel physically stronger, interested in things around you, more tranquil and better able to concentrate
5. enjoy the feelings of warmth comfort and relaxation
6. count from 5 to 1 to emerge from the experience of self-hypnosis.

db/hypnosis/guidelines for self-hypnosis training

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Appendix 7

Muscular relaxation
Stage 1 tape

[spaces – – – – are left in which to insert the child's name]

Lie down on your bed. Lie very still. Now close your eyes. – – – – , I want you to take a deep breath. (Pause) Good. Now let it go. Take another deep breath. Let it go slowly. Another deep breath. Slowly let it go. Good.

Now I want you to clench one of your fists. Clench it hard. Now let it go. Clench it again, hard, now let it go. Clench the other first. Let it go. Clench it again. Let it go. Relax. Good.

Now I want you to screw up the toes of one foot. Tense them hard. Good. Now let them go. Relax. Screw up the toes of your other foot. Tense them hard. Now let them go. Relax.

See if you can clench both fists together. Tense them. Let them go. Relax. See if you can screw up all your toes. Tense them. Relax.

Now tense your fists and your feet all together. Tense them. Good. Hold them tense. Now let them go. Relax.

– – – – you are learning how to make your muscles go hard, to tense them. And you are learning how to let them go, to relax them. Remember these words, – – – – . Tense: makes your muscles go hard. Relax: makes your muscles let go. I want you to do this with some other muscles.

(At this point, the following list of parts of the body should be inserted one by one in the order given into the spaces ..... in the text: each leg, each arm, bottom, shoulders, neck, face, all your body together.)

Tense the muscles of ..... Hold them tense. Let them go. Relax.

Tense the muscles of ..... again. Let them go. Relax.

Tense the muscles of the other ..... Hold them tense. Let them go. Relax.

Tense the muscles of the other ..... again. Let them go. Relax. Very good.

That's very good, – – – – .

Take a deep breath, hold it, let it go. Another deep breath, hold it, let it go.

Lie still for a few moments, and get up when you are ready.

Appendix 8

Muscular relaxation
Stage 2 tape

Now – – – – , you know how to tense different parts of your body and how to let them go, to relax them. Remember, relax means to let your muscles go slack; relax means to let your muscles go limp and floppy.

This tape will teach you how to relax your body. It takes quite a long time to learn how to relax really well. I want you to listen to this tape every day until I see you again. You must listen very carefully and do exactly what the tape says.

– – – – , I am going to teach you how to relax. Lie down on your bed. Put your arms by your side and put your legs out straight. Now close your eyes.

*First of all I want you to take a deep breath. Hold it, now let it go. Take two more deep breaths in your own time. Hold them and let them go slowly. *[Pause to give time for this to be done.]* That's good.

Now I want you to think about your feet. Let your feet relax. Let them go. Let them feel very heavy and very relaxed. Now let that heavy feeling go up your legs until it reaches your knees. Feel the heavy relaxed feeling climb up your legs from your feet up to your knees.

Now let the heavy, relaxed feeling go over your knees into your thighs. Both your legs now feel very heavy, very relaxed and very comfortable. Good.

Let this heavy feeling climb higher up your body into your tummy. Let the muscles in your tummy become very heavy, very relaxed and very comfortable. Now let the heavy feeling go up into your chest, making your chest feel very heavy, very relaxed. Good.

– – – – , think about your hands. Let them go very floppy, very heavy, very relaxed. Now let the heavy feeling climb all the way up your arms so that they feel very comfortable, very relaxed. Now let your shoulders relax, let them become very heavy and very comfortable. Let your neck muscles relax – let them become very heavy, very comfortable. And now let all the muscles of your face relax. All your body is now relaxed, very heavy, very comfortable and very still.*

Now – – – – , I want you to go through each of these relaxation exercises once more. Are you ready? *(At this point you should repeat all the text contained between the asterisks.)*

Just breathe deeply a few times. Enjoy the feeling of heaviness, of relaxation. That's good. When you are ready you can get up.

Muscular relaxation stage 2 tape.DB-EH
December 2003

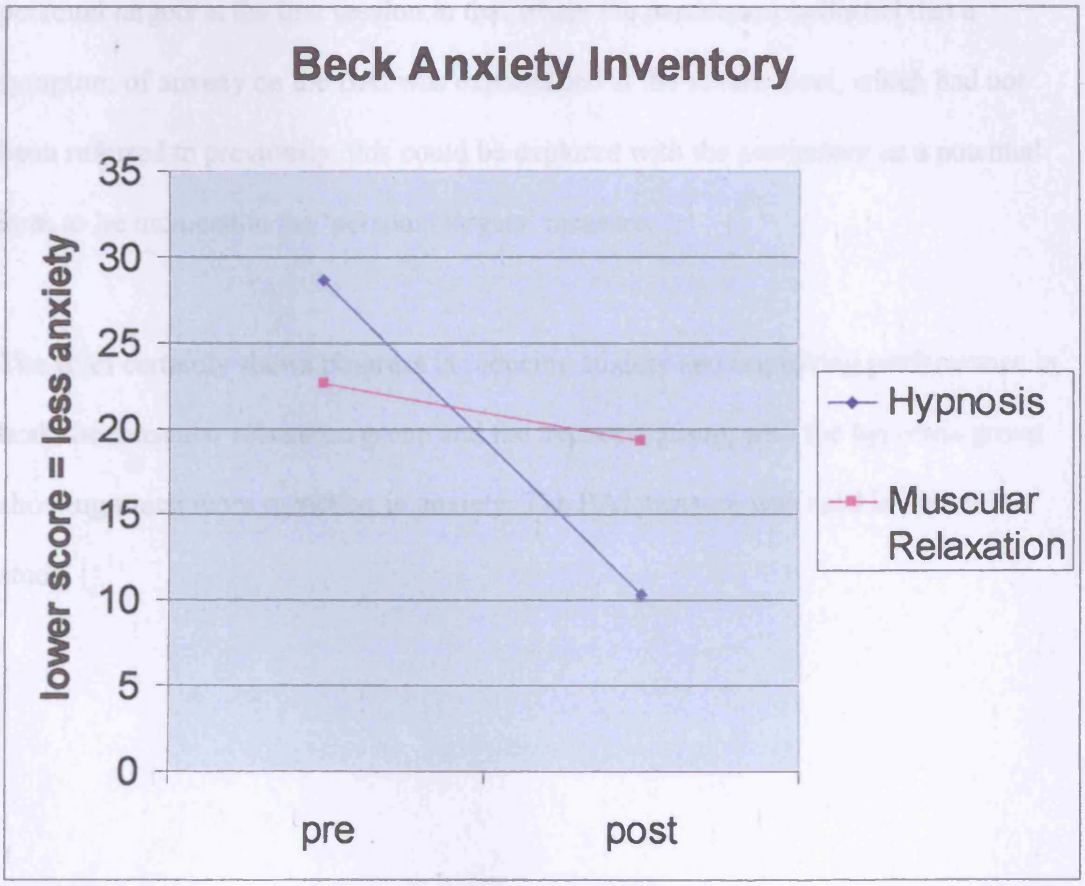
APPENDIX 9 a-j

Pilot results

Appendix 9a

Beck Anxiety Inventory (BAI)

(see Pilot chapter section 2.6.2)



Completion time for the BAI was approximately ten minutes and administration was uncomplicated. The BAI was used to measure the amount of anxiety experienced by each participant. It appeared to do this well and to be sensitive to changes in anxiety over time.

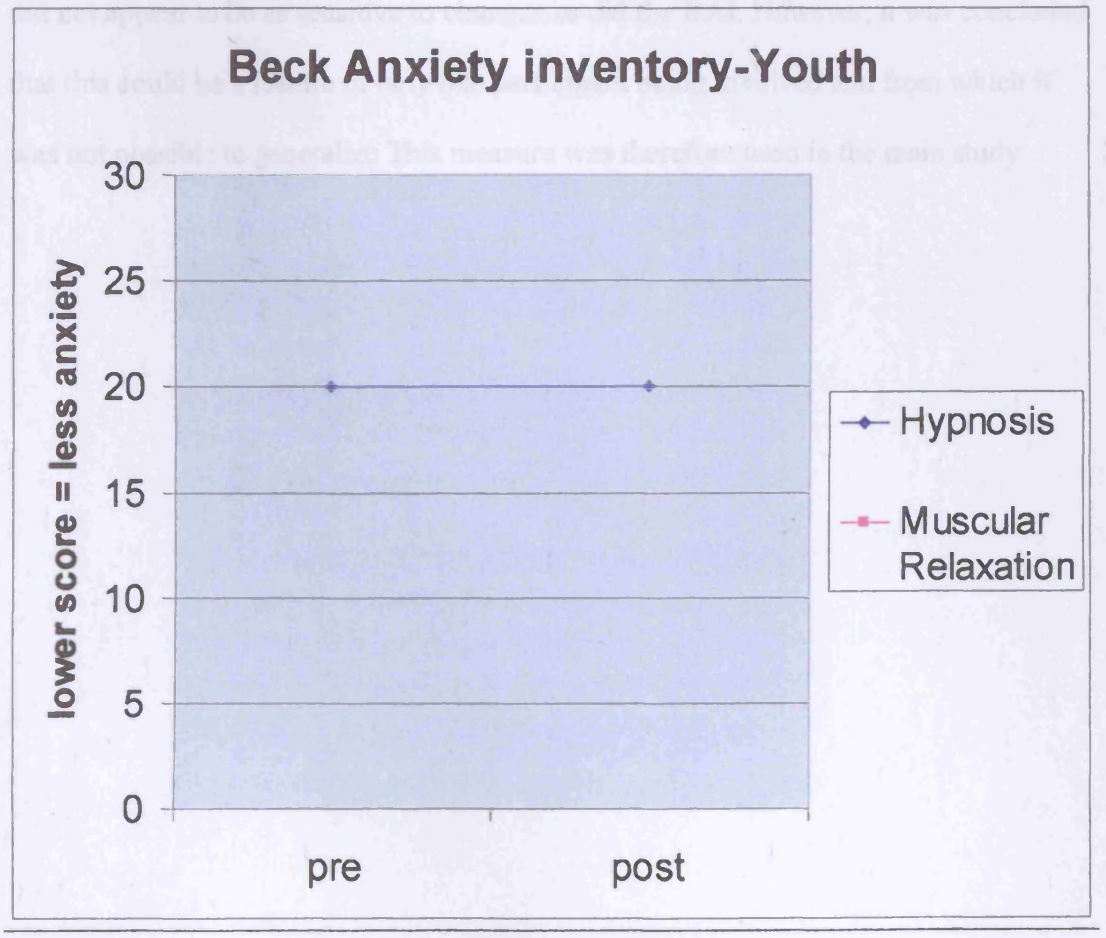
The graph in Appendix 9a shows pre to post anxiety measures reducing from 28.7 to 10.3 for the hypnosis group compared with 22.7 to 19.3 for the muscular relaxation group. Whilst both groups show a reduction in anxiety a much greater reduction is indicated for the hypnosis group. The BAI also contributed to the establishment of personal targets at the first session in that where the participant indicated that a symptom of anxiety on the BAI was experienced at the severe level, which had not been referred to previously, this could be explored with the participant as a potential item to be included in the 'personal targets' measure.

The pilot certainly shows progress in reducing anxiety and improving performance in both the muscular relaxation group and the hypnosis group, with the hypnosis group showing much more reduction in anxiety. The BAI measure was used in the main study.

Appendix 9b

Beck Anxiety Inventory –Youth (BAI-Y)

(see Pilot chapter section 2.6.3)



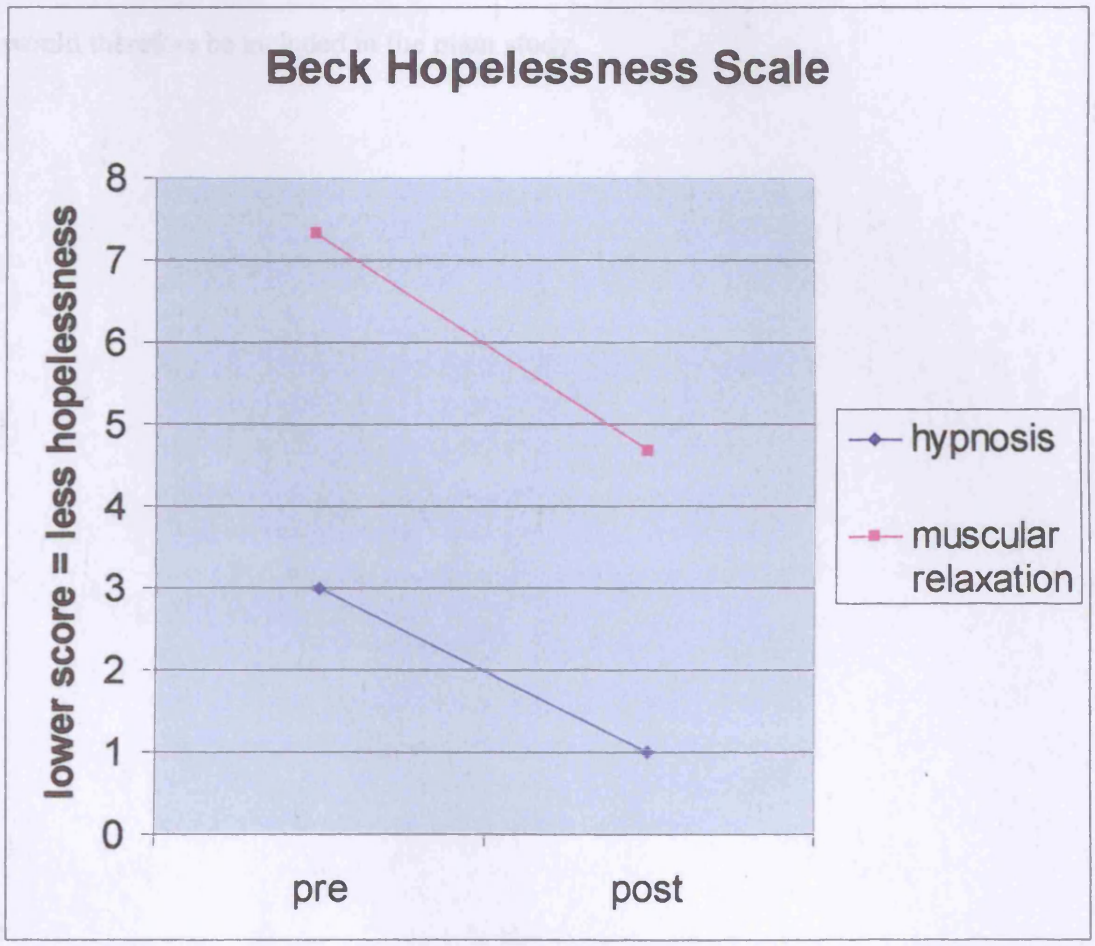
I became aware of this particular measure towards the end of the pilot phase. Consequently it was only possible to administer the measure to one participant. The BAI-Y was designed for the age group of young people I was working with and I

assumed it was likely to be more sensitive to changes in anxiety in this particular age group and that items in the measure would have more relevance for this group. Completion time for this instrument was approximately ten minutes. The BAI-Y was used to measure the amount of anxiety experienced by each participant. Surprisingly it did not appear to be as sensitive to changes as did the BAI. However, it was concluded that this could be a feature of only one participant being involved and from which it was not possible to generalize This measure was therefore used in the main study.

Appendix 9c

Beck Hopelessness Scale (BHS)

(see Pilot chapter section 2.6.4)



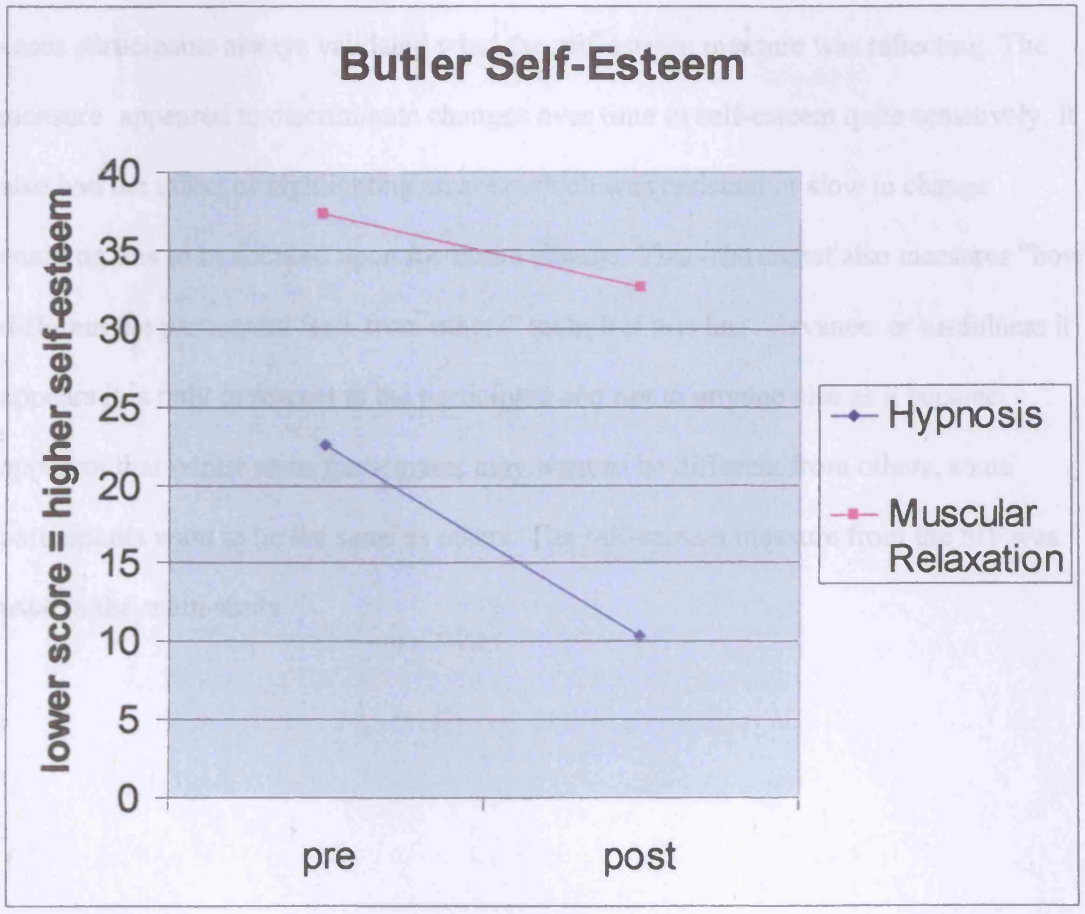
The BHS took approximately ten minutes to complete. The graph illustrates a similar sized reduction in hopelessness from pre to post measures for both the hypnosis group (from 3 to 1) and the muscular relaxation group (from 7.3 to 4.7). At first sight the data

generated by the Beck Hopelessness Scale did not appear useful in that the degree of change measured in the participants appeared to be very small and also started from a very low score. Although it was felt that the original hypothesis for including this measure was not supported by the pilot data collected, nevertheless it was also felt this might be more significant in a larger population and that the hopelessness measure would therefore be included in the main study.

Appendix 9d

Butler Self-Image Profile (SIP)

(see Pilot chapter section 2.6.5)



The SIP took up to eighteen minutes to complete. It appeared to be sensitive to changes in the participant over time. The graph in Appendix 9d shows a comparison of pre and post measures for self-esteem with both groups improving their self-esteem and the

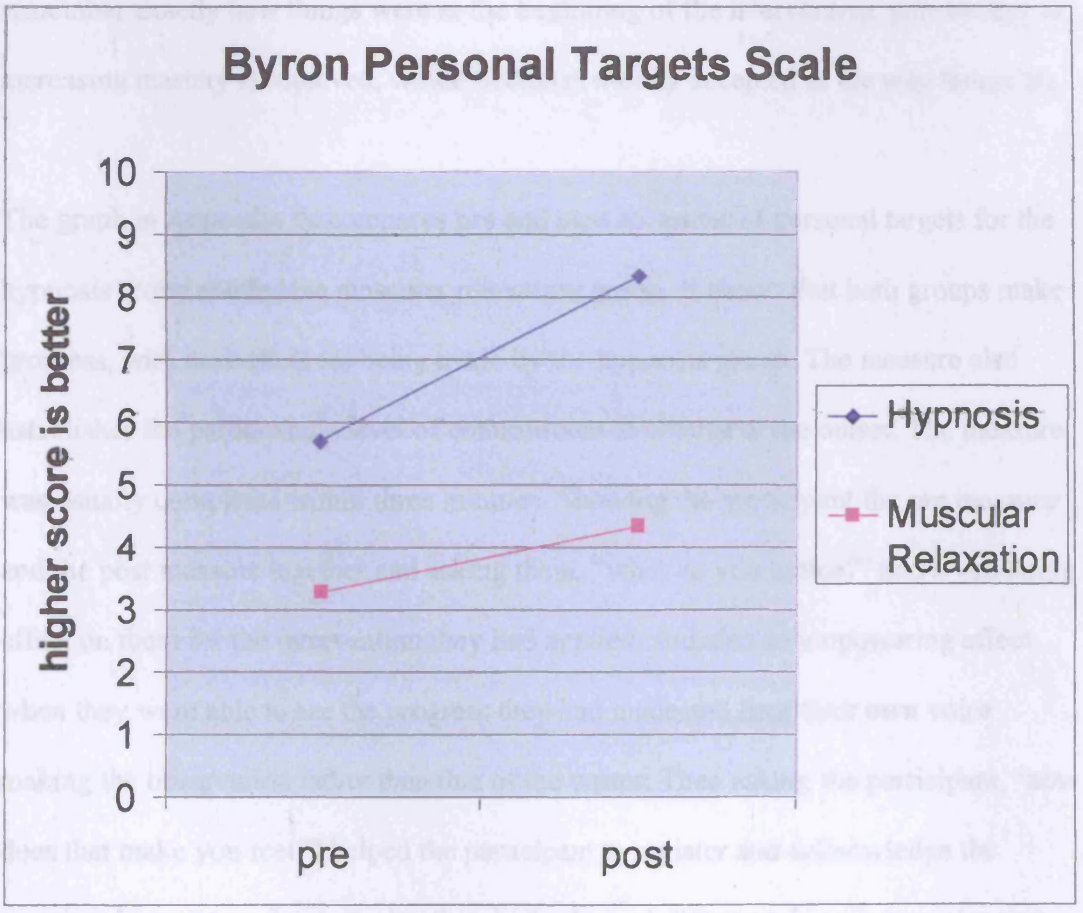
hypnosis group improving approximately three times more than the muscular relaxation group.

These changes in scores were checked out during the session with how the participant was feeling about themselves but without mentioning the scores specifically. In all cases participants always validated what the self-esteem measure was reflecting. The measure appeared to discriminate changes over time in self-esteem quite sensitively. It also had the effect of highlighting an area which was resistant or slow to change enabling this to be focused upon for future change. This instrument also measures "how different the participant feels from others" though if this has relevance or usefulness it appears it is only in respect to the participant and not to anyone else as it became apparent that whilst some participants may want to be different from others, some participants want to be the same as others. The self-esteem measure from the SIP was used in the main study.

Appendix 9e

The Byron Personal Targets Scale.

(see Pilot chapter section 2.6.6)



This appeared to be a very useful measure. It was constructed by the writer for the purposes of this study. It listed what targets the participant wished to change in their life, where they were starting from, and where the participant wanted to get to in order to achieve a mastery level where the target no longer interfered with their life. This is a

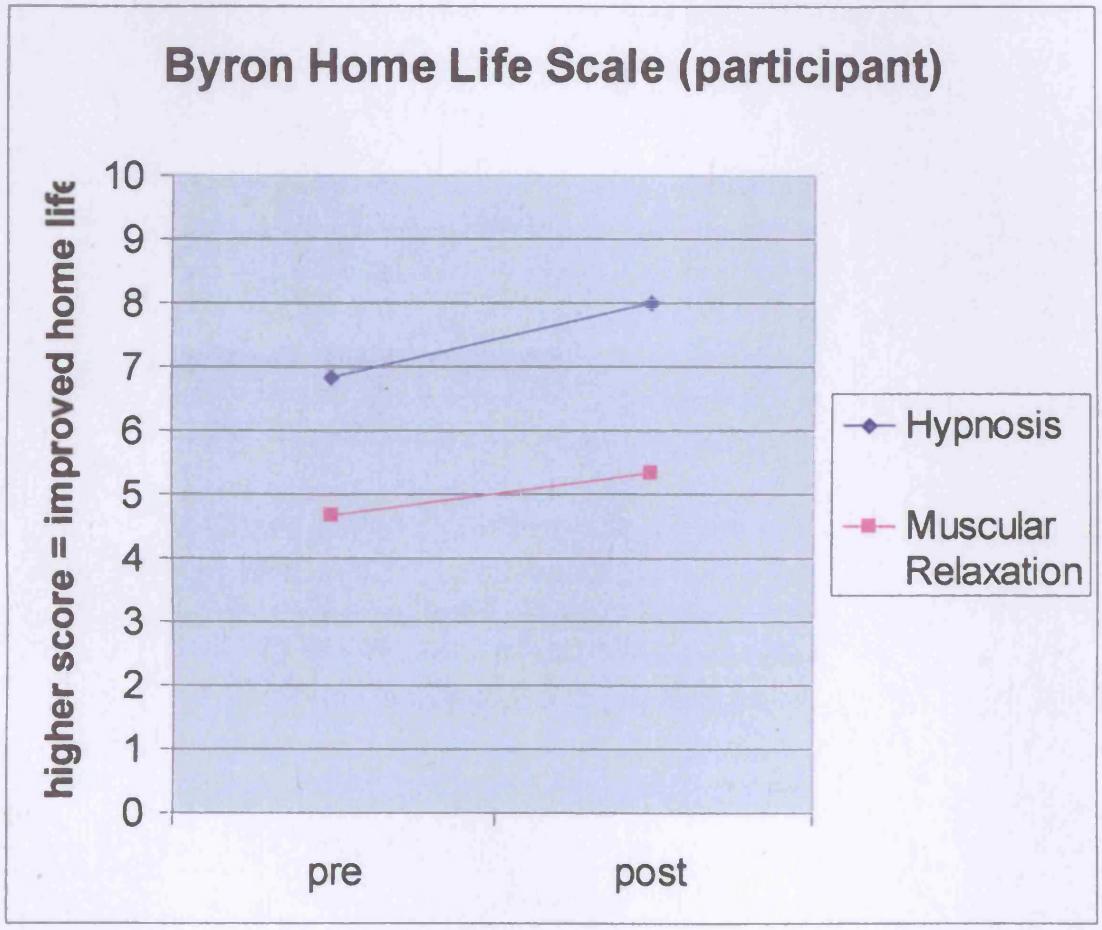
good example of the applied psychology used in this study in that the process conveys to the participant they are being listened to, that their concerns are being taken seriously and that that they are being given considerable control. These measures become more salient over time, as memory decays and it becomes more difficult for the participant to remember exactly how things were at the beginning of the intervention, particularly as increasing mastery is achieved, which becomes rapidly accepted as the way things are.

The graph in Appendix 9e compares pre and post measures of personal targets for the hypnosis group and for the muscular relaxation group. It shows that both groups make progress, with most progress being made by the hypnosis group. The measure also establishes the participant's level of commitment to change at the outset. The measure was usually completed within three minutes. Showing the participant the pre measure and the post measure together and asking them, "what do you notice?" had a validating effect on them for the intervention they had applied, and also an empowering effect when they were able to see the progress they had made and hear their own voice making the observation rather than that of the writer. Then asking the participant, "how does that make you feel?" helped the participant to register and acknowledge the emotional impact on them of what they had achieved. When seeking a current rating from a participant they were deliberately never reminded of their previous rating in order to avoid it influencing their current rating. The Byron Personal Targets scale was employed in the main study.

Appendix 9f (1)

The Byron Effect on Home Life Scale
Participant-rated

(see Pilot chapter section 2.6.7)



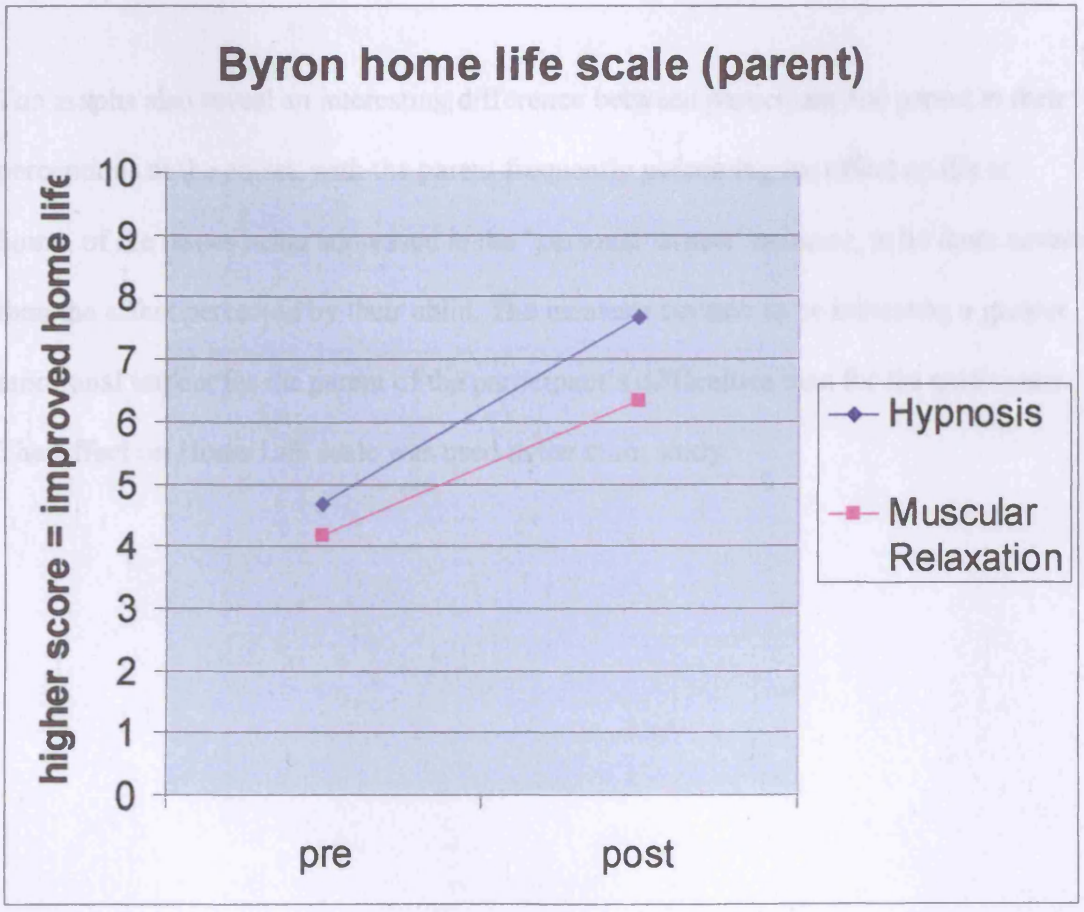
This measure, constructed by the writer for this study, took only seconds to complete and did discriminate well in registering the changing perceptions over time both of the participant and of their parent. The graph in Appendix 9f (1) shows a comparison of

participants' pre and post measures of the effect on life at home, for everyone living there, of the items listed in their personal targets. Both the hypnosis group and the muscular relaxation group showed some improvement in their perceptions of life at home with the hypnosis group showing more improvement (from 6.8 to 8.0) compared with the muscular relaxation group (from 4.6 to 5.3).

Appendix 9f (2)

The Byron Effect on Home Life Scale – Parent-rated

(see Pilot chapter section 2.6.7)



The graph in Appendix 9f (2) compares the parental perceptions of the effect of participants personal targets on life at home for everyone living there. The graph illustrates a comparison of pre and post measures and shows perceived improvement in

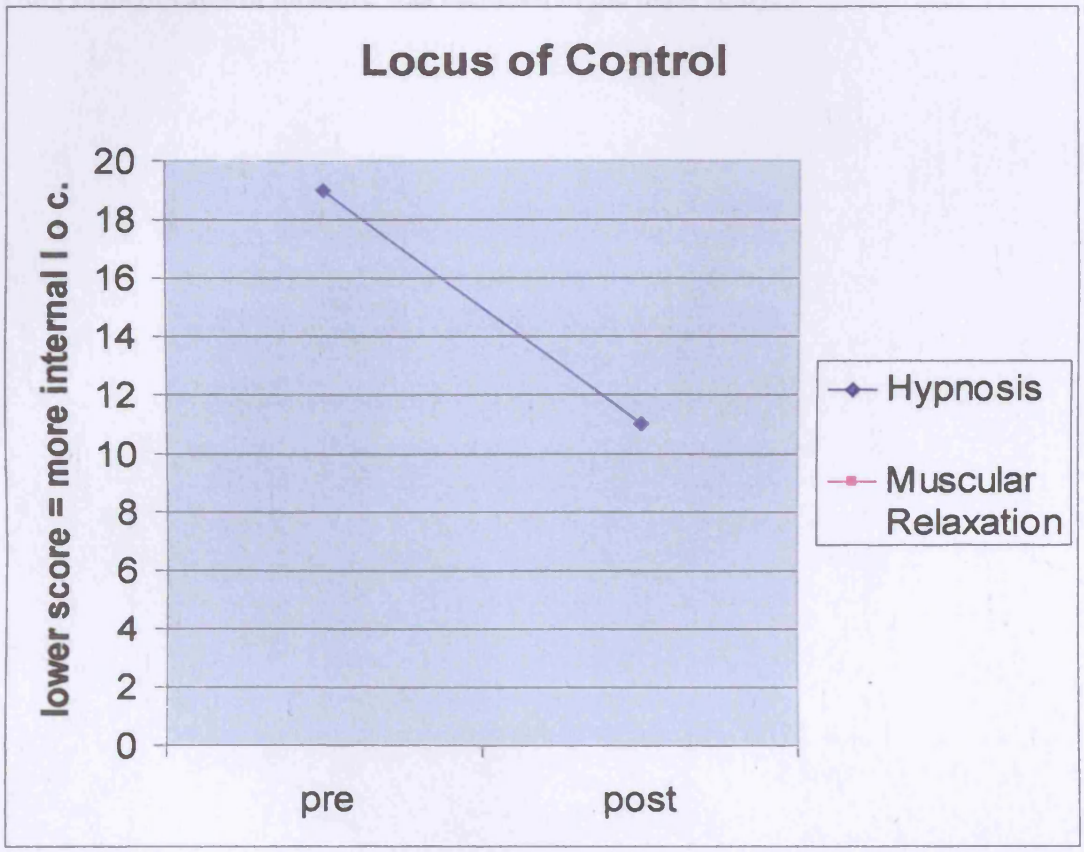
life at home by parents of the hypnosis group (from 4.7 to 7.7) as slightly more than the improvement of the muscular relaxation group (from 4.2 to 6.3). Comparison of graphs 9f (1) and 9f (2) shows a greater range in improvement perceived on effect on life at home, by parents of both groups, than that perceived by their participating children.

The graphs also reveal an interesting difference between participant and parent in their perceptions at the outset, with the parent frequently perceiving the effect on life at home, of the issues being addressed in the 'personal targets' measure, to be more severe than the effect perceived by their child. The measure appears to be indicating a greater emotional impact for the parent of the participant's difficulties than for the participant. The Effect on Home Life scale was used in the main study.

Appendix 9g

Nowicki-Strickland (Gamage version) Locus of Control Scale for Children

(see Pilot chapter section 2.6.8)



Later reading led to the locus of control measure being introduced towards the end of the pilot phase. It was only possible for it to be administered to one participant. In Appendix 9g the graph of the Nowicki-Strickland Locus of Control for Children

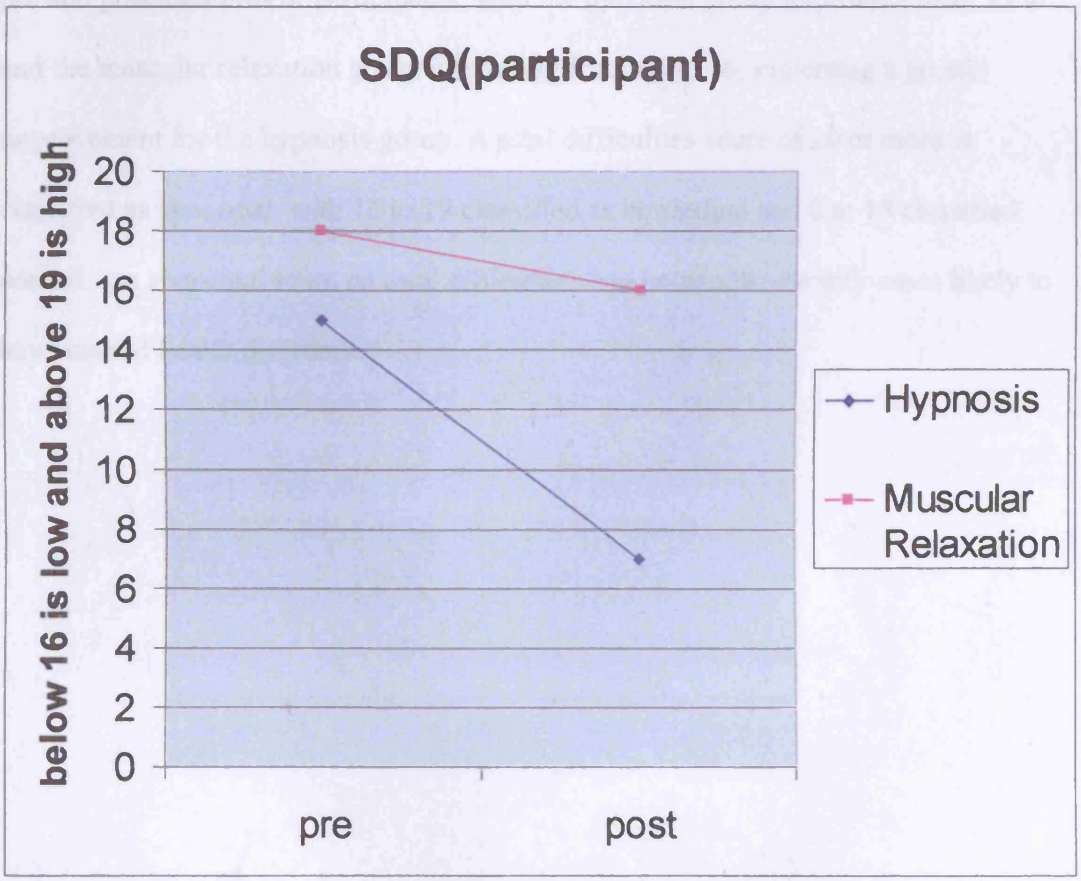
indicated changes from pre to post measures for the hypnosis participant of from 19 to 11. The measure appeared to be sensitive to changes in the participant's degree of internal / external locus of control indicating an increase in internal locus of control over the intervention period .

The Locus of Control measure was included in the main study.

Appendix 9h (1)

Goodman Strengths and Difficulties Questionnaire (SDQ) Participant-rated

(see Pilot chapter section 2.6.9)



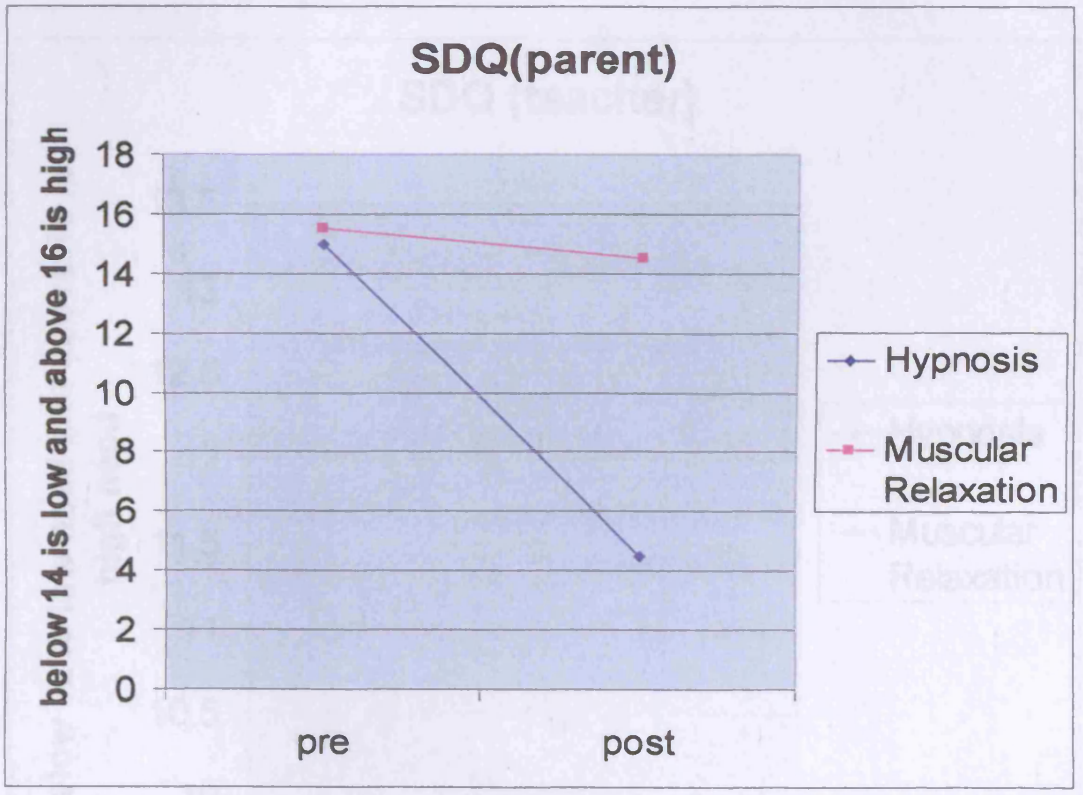
The Goodman Strengths and Difficulties Questionnaire took between twelve and fifteen minutes to complete. It claims to be sensitive to treatment changes. It was administered to the subject, the parent and school with the aim of providing a comparison of their

perceptions. This measure took longer to score than some of the other measures and unlike some of the other measures it was not possible to score it immediately following administration with the advantage of the participant still being present. Therefore it took longer for the researcher to become aware of any changes and not until after the actual session was completed. The graph in appendix 9h (1) illustrates a comparison of pre and post measures of participants, with the hypnosis group improving from 15 to 7 and the muscular relaxation group improving from 18 to 16, indicating a greater improvement for the hypnosis group. A total difficulties score of 20 or more is classified as abnormal, with 16 to 19 classified as borderline and 0 to 15 classified normal. An abnormal score on total difficulties can be used to identify cases likely to have mental health disorders.

Appendix 9h (2)

Goodman Strengths and Difficulties Questionnaire (SDQ) Parent-rated

(see Pilot chapter section 2.6.9)

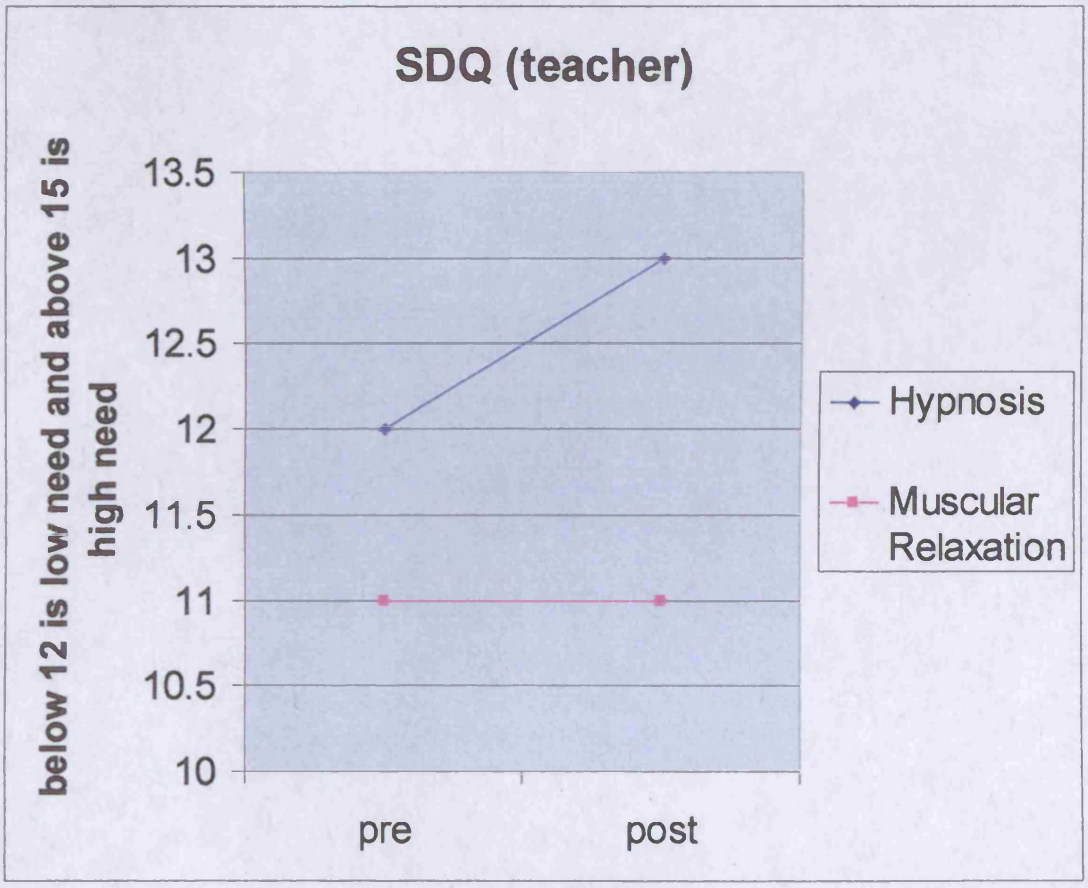


The graph in Appendix 9h (2) measures the perception of the parents of the participants on the SDQ. Comparison of pre and post measures illustrates an improvement in parents' perceptions of both groups with the hypnosis parents improving much more (from 15 to 4.5) compared with the muscular relaxation parents (from 15.5 to 14.5). This very much mirrors the SDQ results for participants.

Appendix 9h (3)

Goodman Strengths and Difficulties Questionnaire (SDQ) Teacher rated

(see Pilot chapter section 2.6.9)



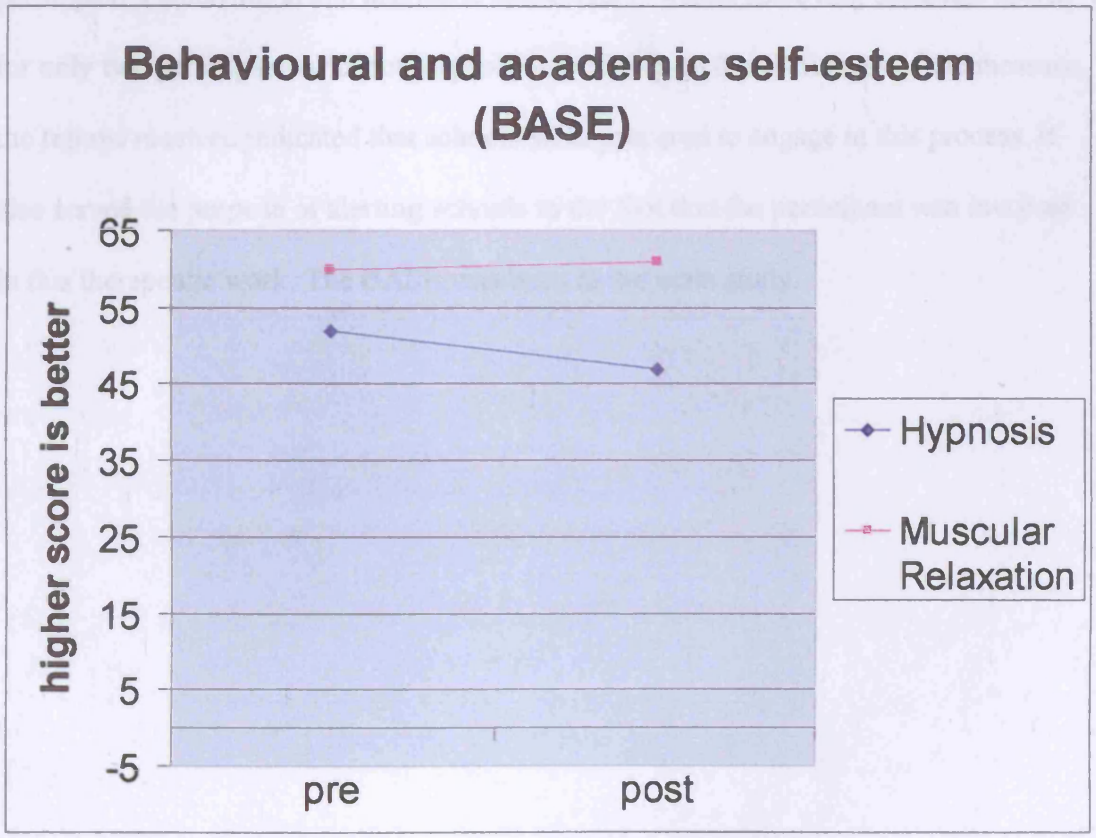
The graph in Appendix 9h (3) measures the perception, on the SDQ, of a teacher at the school attended by the participant. The teacher being identified by the participant as knowing them well. Comparison of pre and post measures shows the hypnosis group as

becoming slightly worse (from 12 to 13) and muscular relaxation group as not changing (from 11 to 11). These SDQ results are in contrast with those of parents and those of participants. The SDQ results suggest that the teacher is less sensitive to changes in the participant than are both the participant and their parent. However, this could be explained by the different setting or the large number of students the teacher has to work with or both. The difference revealed in the pilot, between parent, participant and school perceptions using the SDQ measure, suggest that it will be interesting to see if this difference is replicated in the main study. The SDQ measure was used in the main study with participant, parent and school.

Appendix 9i

The Coopersmith Behavioural and Academic Self-Esteem (BASE)

(see Pilot chapter section 2.6.10)



This measure was introduced after the start of the pilot following further reading as it was hypothesized that increased self-esteem and reduced anxiety would be reflected in the perceived behaviour of the student in school showing an increased score on this

measure. Some post data was lost where participants had left school by the time the post measures were collected and the teacher felt unable to comment on a student they had not seen for several weeks. Graph 9i shows a comparison of pre and post measures which were obtained only for one participant, from each of the hypnosis group and the relaxation group, for the school's measure of changes they perceived in the participant's behavioural and academic self-esteem. Whilst achieving complete scores for only two participants was not helpful for deciding on the usefulness of the measure, the returns received indicated that schools were prepared to engage in this process. It also served the purpose of alerting schools to the fact that the participant was involved in this therapeutic work. The BASE was used in the main study.

Appendix 9j

Parent Satisfaction Questionnaire (PSQ)

(see Pilot chapter section 2.6.11)

The questions in this measure appraise satisfaction with the wait for an appointment, information provided, location of appointment, accessibility and physical environment, the meetings with the psychologist involved, duration, length and timing of appointments, and finally outcome with regard to change and overall satisfaction. An open ended question also invites parents to classify an aspect of the service with which they were less than satisfied and an aspect of the service with which they were more than satisfied. Completion time is approximately fifteen minutes but times can vary from parent to parent. The questionnaire is reported to have an adequate degree of validity and good reliability (Stallard, 1996).

The PSQ is a quality assurance measure. It was only possible to use this measure with two participants in the pilot because of the length of time in total which all of the measures were taking to administer. Analysis of the two PSQs completed did appear to provide positive feedback as to how the delivery of the two approaches was perceived by parents. The original PSQ by Stallard was administered through the post but in this pilot it was given by hand to the parent to complete at a one month follow up meeting. This was to ensure some returns were received and also to cut down on time taken for respondents to reply. However this could be criticized because it removed the anonymity of the respondents who may subsequently have felt more constrained in their responses.

Appendix 10

SESSION 1

PERSONAL TARGETS

Name: **Date:**

Least Most

0 1 2 3 4 5 6 7 8 9 10 How much do you want to change the way things are?

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10

0 1 2 3 4 5 6 7 8 9 10 How improved do you think you will be at the end of the treatment?

db/st/misc/personal targets-session 1

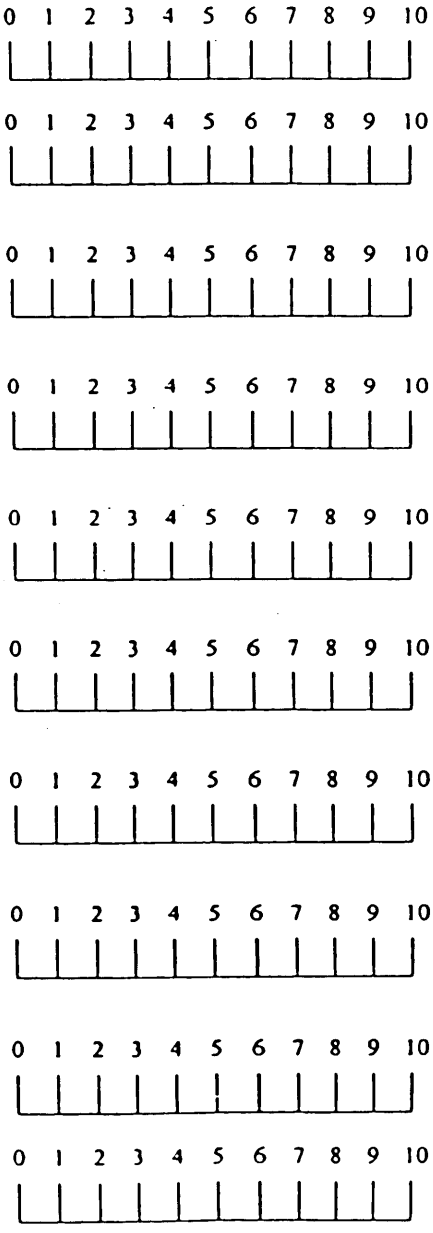
Appendix 11

SESSION _____

PERSONAL TARGETS

Name: Date:

Least Most



db'st'misc'personal targets-session ___

Appendix 12

12th July 02

Dear Mr Byron,

Appendix 13

Glossary of Hypnosis Terminology

Induction

This refers to the starting point in the interaction using hypnosis where the conscious mind of the participant is occupied by the communication of the therapist. Our awareness is only able to attend to a very small number of things at any one time and if the number of things demanding our attention increases then we begin to become more selective to what we attend to. The participant by selectively attending to the therapist's communication becomes less aware of other things (Yapko, 2003).

Progressive relaxation

This is a further stage in the process of inducing hypnosis. The participant is instructed to progressively let each group of muscles in their body relax. There are various ways of wording this process and presenting it to the participant but the participant is receiving permission to let go (Gibson and Heap, 1991). It is the degree of mental relaxation rather than the physical relaxation which is important for the therapy according to Rachman (1968).

Deepening

This refers to techniques for intensifying the participant's experience of hypnosis and are usually applied following induction. Deepening consists of a series of instructions designed to place the participant in a deeper state of hypnosis. This relates to traditional models of hypnosis which infers a relationship between the depth of hypnosis and the success of the hypnosis. Contemporary thought is that even if the participant is only lightly involved yet is able to follow the therapist's suggestions then this is deep enough (Yapko, 2003)

Special place

This is a place ideally selected by the participant where they feel safe and secure and able to relax and let go. It can be real or imaginary.

Habit change

Habit is a behaviour which is repeated frequently. It can be viewed as a learned or

conditioned response (Wester, 1991). Habit change implies changing a habit. In the context of the hypnosis session participants are invited to visualise watching a video of their habits and when they see one which they feel could benefit from modifying in some way they are invited to spend some time, just what they feel comfortable with, doing so.

Ego strengthening

This refers to the process of giving the participant suggestions to enhance their image, self-confidence and feeling of well-being (Gibson and Heap, 1991). The suggestions can be delivered in combination with a metaphor which can facilitate the participant to utilize imagery for example.

Post-hypnotic suggestion.

These are suggestions, given to the participant whilst in hypnosis, designed to encourage particular thoughts, feelings or behaviour in future circumstances. They can help the participant to take new possibilities into experiences in the future (Yapko, 2003).

Age progression

In age progression hypnosis is used to develop positive expectancy. It implies for the participant that things can change. The participant is encouraged to see them self managing positively in the future (Yapko, 1997).

Self-Hypnosis

Self-hypnosis is hypnosis induced in the participant by themselves (Golden, Dowd and Friedberg, 1987). Indeed all hypnosis can be viewed as self-hypnosis (Spanos and Barber, 1976) as they view any hypnotic phenomena as resulting from the same processes; expectations, attitudes, motivation, cooperation and level of assimilation in suggestion related thinking. Self-hypnosis can be viewed as a way for the participant to become active and involved in the treatment process (Sanders, 1993). In other words the participant becomes their own therapist.

Hetero-hypnosis

This refers to hypnosis delivered by a therapist in contrast to hypnosis delivered by self.

Appendix 14

The Self Image Profile

For Adolescents (SIP-A)

Richard J Butler

The Psychological Corporation

Published by Harcourt Assessment, 32 Jamestown Road, London NW1 7BY.
 ISBN 0 7491 2046 0

B C D E
2 3 4 5

Appendix 15

BHS®

Date:_____

THE PSYCHOLOGICAL CORPORATION
Harcourt Brace & Company

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015-413362-0

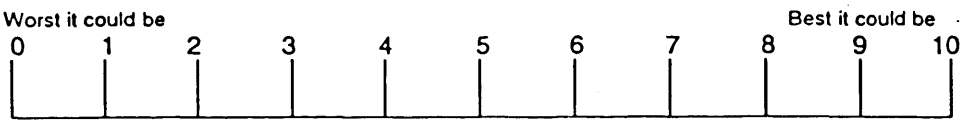
Appendix 16a

BYRON EFFECT ON HOME LIFE SCALE (STUDENT)

Student:_____

To be completed by STUDENT **Date:**_____

Current home situation
(How you feel it is now)



Additional comment?

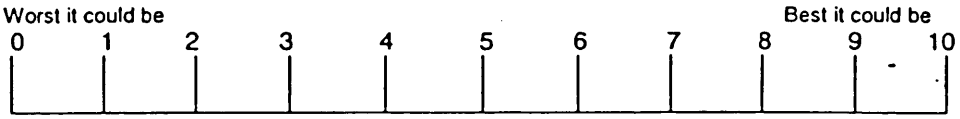
Appendix 16b

BYRON EFFECT ON HOME LIFE SCALE (PARENT)

Student:_____

To be completed by PARENT **Date:**_____

Current home situation
(How you feel it is now)



Additional comment?

Appendix 17

Appendix 18

Strengths and Difficulties Questionnaire

TO BE COMPLETED BY A YOUNG PERSON AGED BETWEEN 11 AND 16

For each item, please mark the box for Not True, Somewhat Tues or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain, or the items seem daft! Please give your answers on the basis of the child's behaviour over the last six months.

Your Name: _____ Your age: _____

Pre-Measures

	Not True	Somewhat True	Certainly True
I try to be nice to people. I care about their feelings	☐	☐	☐
I get restless, I cannot sit still for long	☐	☐	☐
I get a lot of headaches, stomach-aches or sickness	☐	☐	☐
I usually share with others (food, games, pens etc)	☐	☐	☐
I get very angry and often lose my temper	☐	☐	☐
I am usually on my own, I generally play alone or keep to myself	☐	☐	☐
I usually do as I'm told	☐	☐	☐
I worry a lot	☐	☐	☐
I am helpful if someone is hurt, upset or feeling ill	☐	☐	☐
I am constantly fidgeting or squirming	☐	☐	☐
I have one good friend or more	☐	☐	☐
I fight a lot. I can make other people do what I want	☐	☐	☐
I am often unhappy, downhearted or tearful	☐	☐	☐
Other people my age generally like me	☐	☐	☐
I am easily distracted. I find it difficult to concentrate	☐	☐	☐
I am nervous in new situations, I easily lose confidence	☐	☐	☐
I am kind to younger children	☐	☐	☐
I am often accused of cheating or lying	☐	☐	☐
Other children or young people pick on or bully me	☐	☐	☐
I often volunteer to help others (parents, teachers, children)	☐	☐	☐
I think before I do things	☐	☐	☐
I take things that are not mine from home, school or elsewhere	☐	☐	☐
I get on better with adults than with people my own age	☐	☐	☐
I have many fears, I am easily scared	☐	☐	☐
I finish the things I'm doing. My attention is good	☐	☐	☐

Please turn over – there are a few more questions on the other side...

Overall, do you think that you have difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No difficulties	Yes – Minor difficulties	Yes – More serious difficulties	Yes – Severe difficulties
☐	☐	☐	☐

If you have answered 'Yes', please answer the following questions about these difficulties:

- How long have these difficulties been present?

Less than a month	1-5 months	5-12 months	Over a year
☐	☐	☐	☐

- Do the difficulties upset or distress you?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

- Do the difficulties interfere with your everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
Home life	☐	☐	☐	☐
Friendships	☐	☐	☐	☐
Classroom learning	☐	☐	☐	☐
Leisure activities	☐	☐	☐	☐

- Do the difficulties make it harder for those around you (family, friends, teachers etc)?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

Signature:_____

Date:_____

Thank you very much for your help.

Ref:Strengths&DifficultiesQuestionnaire by Young person.Misc.db-la

Appendix 19

Strengths and Difficulties Questionnaire

TO BE COMPLETED BY THE CARER OF A CHILD AGED BETWEEN 4 AND 16

For each item, please mark the box for Not True, Somewhat Tues or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain, or the items seem daft! Please give your answers on the basis of the child's behaviour over the last six months.

Child's Name: _____ Male / Female Date of Birth: _____

Pre-Measures

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot sit still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, downhearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Please turn over – there are a few more questions on the other side...

Overall, do you think that the pupil has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No difficulties	Yes – Minor difficulties	Yes – More serious difficulties	Yes – Severe difficulties
☐	☐	☐	☐

If you have answered 'Yes', please answer the following questions about these difficulties:

- How long have these difficulties been present?

Less than a month	1-5 months	5-12 months	Over a year
☐	☐	☐	☐

- Do the difficulties upset or distress your pupil?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

- Do the difficulties interfere with your pupil's everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
Home life	☐	☐	☐	☐
Friendships	☐	☐	☐	☐
Classroom learning	☐	☐	☐	☐
Leisure activities	☐	☐	☐	☐

- Do the difficulties put a burden on you or the family as a whole?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

Signature:_____

Date:_____

Mother/Father/Other (please specify):_____

Thank you very much for your help.

To be completed by:_____
And returned to David Byron, Senior Educational Psychologist by fax

Ref:Strengths&DifficultiesQuestionnaire.Misc.db-la

Appendix 20

Strengths and Difficulties Questionnaire

TO BE COMPLETED BY A TEACHER OF A CHILD AGED BETWEEN 4 AND 16

For each item, please mark the box for Not True, Somewhat Tues or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain, or the items seem daft! Please give your answers on the basis of the child's behaviour over the last six months.

Child's Name: _____ Male / Female Date of Birth: _____

Pre-Measures

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot sit still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, downhearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Please turn over – there are a few more questions on the other side...

Overall, do you think that the pupil has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No difficulties	Yes – Minor difficulties	Yes – More serious difficulties	Yes – Severe difficulties
☐	☐	☐	☐

If you have answered 'Yes', please answer the following questions about these difficulties:

- How long have these difficulties been present?

Less than a month	1-5 months	5-12 months	Over a year
☐	☐	☐	☐

- Do the difficulties upset or distress your pupil?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

- Do the difficulties interfere with your pupil's everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
Home life	☐	☐	☐	☐
Friendships	☐	☐	☐	☐
Classroom learning	☐	☐	☐	☐
Leisure activities	☐	☐	☐	☐

- Do the difficulties put a burden on you or the family as a whole?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

Signature:_____

Date:_____

Mother/Father/Other (please specify):_____

Thank you very much for your help.

To be completed by:_____
And returned to David Byron, Senior Educational Psychologist by fax

BASE

Appendix 21

Consulting Psychologists Press, Inc.
3. E. Bayshore Road, Palo Alto, CA 94303

Appendix 22

PARENT SATISFACTION QUESTIONNAIRE

Index Number:

We are writing to everyone who has recently had contact with the Hypnotherapy Project to ask them about the service they received. We are doing this to try and make our service better by improving those things you found to be less than satisfactory.

Please can you help by completing this short questionnaire, and returning it in the enclosed pre-paid envelope. Your reply will be treated in the strictest confidence.

PLEASE TICK ONE BOX FOR EACH QUESTION

Before the first appointment

1. How long was it between your referral to the psychologist and your first appointment?

Less than one month	( )
Between 1 and 2 months	( )
Between 2 and 3 months	( )
More than 3 months	( )

2. How did you feel about the period of time you had to wait before your first appointment?

Very satisfied	( )
Mostly satisfied	( )
Indifferent or mildly dissatisfied	( )
Very dissatisfied	( )

3. Do you think that more information about the psychology service (for example a leaflet) would have been useful before your first appointment?

Yes, definitely	( )
Yes, I think so	( )
No, I don't think so	( )
No, definitely not	( )

If yes, what kind of information would have been helpful?

Place of appointment

4. Where did you usually see the psychologist?

5. Were you satisfied with where you saw the psychologist?

Yes	( )
No	( )

If no, where would you have preferred to meet?

6. How did you find the surroundings?

Meeting the psychologist

7. When you met the psychologist, were you usually:

On your own	( )
With your child	( )
With your whole family	( )
With friends	( )

8. Was this satisfactory?

Yes	( )
No	( )

If no, how would you have preferred to meet?

9. How did you feel talking with the psychologist?

Not relaxed at all	( )
Not very relaxed	( )
Relaxed	( )
Very relaxed	( )

10. How well did you feel your problems were understood?

Very well	( )
To some extent	( )
Not very much	( )
Not at all	( )

The appointments

11. Were the times of the appointments offered to you

Very convenient	( )
Convenient	( )
Inconvenient	( )
Very inconvenient	( )

If inconvenient, when would have been more convenient?

12. How did you feel about the length of each appointment?

Very dissatisfied	( )
Indifferent or mildly dissatisfied	( )
Mostly satisfied	( )
Very Satisfied	( )

If dissatisfied, please explain why:

13. How did you feel about the interval between appointments?

Very dissatisfied	( )
Indifferent or mildly dissatisfied	( )
Mostly satisfied	( )
Very satisfied	( )

If dissatisfied, please explain why:

14. How satisfied were you with the total number of appointments?

Very satisfied	( )
Mostly satisfied	( )
Indifferent or mildly dissatisfied	( )
Very dissatisfied	( )

If dissatisfied, please explain why:

<u>Outcome of seeing the psychologist</u>

15. How has the situation changed following your contact with the psychologist?

Worse	( )
No change	( )
Better	( )
Much better	( )

If no change or worse, how are you coping with the situation?

16. Has the service your child received helped him/her to deal with his/her problems?

Yes, it helped a great deal	( )
Yes, it helped somewhat	( )
No, it didn't really help	( )
No, it seemed to make things worse	( )

17. Overall, how satisfied are you with the service you received?

Very satisfied	( )
Mostly satisfied	( )
Indifferent or mildly dissatisfied	( )
Very dissatisfied	( )

18. During your period of contact with the psychology service could you briefly describe:

a) One thing with which you were more than satisfied

b) One thing with which you were less than satisfied

19. We are particularly keen to receive suggestions about how our service can be improved. Can you make any suggestions that would help us to improve it?

Signed:..... Date:.....

Please return the completed questionnaire using the enclosed pre-paid envelope.

THANK YOU VERY MUCH FOR YOUR HELP

Appendix 23

Additional Case Studies

Hypnosis Case study 2 – (F)

F, a girl in Year 11, was referred by her General Practitioner. Twelve months earlier F had presented as very tearful with low self-worth which had been triggered by a friend whom F had supported emotionally when she had lost her father and who had later begun ignoring her. F had also been worried by her short stature and also by change. After several GP consultations things had seemed to improve. Then a few months later the problems had recurred. F had told the GP that she had felt very low and that her eating was disordered in that she had felt she was too fat. F described as a sensitive and very caring individual by the GP had felt unable to climb out of her low state of self-esteem. F's school had been described by the GP as a rather high powered public school, competitive and possibly too challenging an environment for F.

F's mother had confirmed that the problems had started three years earlier when F was aged thirteen. F had helped a very close friend get through the death of her father. The friend then had dropped her and had not spoken to F since though they were in the same year group at school. F had been seeing a counsellor for depression. Discussion with F had revealed that she had experienced, on a daily basis, several anxiety producing situations. These had included:

- "I feel others at school are better than me so it is difficult to look at them or talk to them."

- "I am frightened to sit next to some."
- "I am frightened of meeting people in new situations and my anxiety stops me going into new situations that I would like to."
- "I do not have confidence."
- "I have issues about myself, the way I look. There is a certain image you have to have at my school."
- "I am so worried about what people think, it started a year or so ago."
- "My schoolwork is affected, I always think I cannot do it, that it will be wrong....I'm a bit of a perfectionist."

The hypnotherapy programme had included four sessions and had seen a pre measure of anxiety on the BAI of 25 reduce to 11 at the post measure and to 8 at the six month follow up. At the third session in mid January, during age progression (Appendix 13), F had chosen to go forward in time six months to August and had described evidence of her progress " I am on a sandy beach with bluey green sea, it's warm. I have long nails which shows I feel more confident being on that beach, it's to do with how I look, I'm looking thin." Also at this session F's mother noted, "she is coping better with stress and pressure than I thought she would. She has changed her bedroom round and she didn't like any change before." At session four F had observed that she was feeling a lot better and more confident. She had sailed through her mock exams and had worked hard every evening.

At the six month follow up visit, in September, F had looked relaxed and smiling, and

acknowledged she had made huge improvements in all of her personal targets for change including confidence, feeling more comfortable with her height, weight and appearance, worrying less about how others viewed her, and not being jealous of other's relationships or fearing change. F had remarked that she had not needed to use self-hypnosis for the past three months. On a scale of 1 to 10, with 10 being the best it could be, the effect of F's difficulties on home life, for everyone, was recorded by F to have improved from a pre measure of 6 to 8 at the six month follow up and by her mother to have improved from a 5 to a 9.

F's mother had observed that, "before she was tearful a lot of the time and always so negative which doesn't seem to be there for much of the time now...she has a more positive outlook, she is more like she used to be. Even her eldest brother has noticed a difference in her and my husband has also."

Muscular Relaxation Case Study 2 -- (C)

C had been referred by an outreach counsellor at Easter in Year 10 because of the effect on C of residual anxiety from bullying by five girls at school. However it was not until the start of the Autumn term in Year 11 following another bullying incident that C decided she wished to do something about the effect this was having on her. In describing her symptoms C noted, "I have panic attacks, my stomach jumps, my legs go wobbly and I get really nervous when I see the people that bullied me. Yesterday one of the girls, K, started on me saying, "I'm going to f**king break your legs." C had identified her targets for improvement as including, to worry less about going into

24, reduce to 14 at the post-measure, and to 5 at the one month follow up. Con
recorded by her mother at the three month follow up visit had included, "she is
great, not as nervous, no phone calls from her when at school and if something
happens at school she says – oh well- and carries on." At the six month follow
outreach counsellor had observed, "C is dealing with situations at school better
herself had been visibly relaxed and smiling and had said that she felt good abo
progress and had noted that she had only needed to use the muscular relaxation
technique about ten times in the past three months. Perception of how little, wi
being the best it could be, the original difficulties were affecting life at home n
everyone had improved from 2 to 9.5 for C and from 3 to 8 for her mother.